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EXPERIMENTAL FLOW PROPERTIES IN THE WAKE OF A 120° CONE AT MACH NUMBER 2.20

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Results typical of the tabulated data indicate that the largest gradients in the flow properties occur at the location in the wake near the neck-down or recompression region. The wake profiles tend to smooth out farther downstream to the extent that static pressure becomes essentially constant across the wake. Velocity distributions at these distances were predicted empirically by considering velocity as a power-law function of longitudinal distance from the cone and as an exponential function of radial distance from the wake center.

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SUMMARY

An investigation has been conducted to obtain flow properties in the wake of a 120° cone at a free-stream Mach number of 2.20. Free-stream Reynolds number based on model (base) diameter was 0.66×10^6 for the study. Measured total and static pressures were used to calculate the appropriate flow properties which are presented in tabular form.

Results typical of the tabulated data indicate that the largest gradients in the flow properties occur at the location in the wake near the neck-down or recompression region. The wake profiles tend to smooth out farther downstream to the extent that static pressure becomes essentially constant across the wake. Velocity distributions at these distances were predicted empirically by considering velocity as a power-law function of longitudinal distance from the cone and as an exponential function of radial distance from the wake center.

INTRODUCTION

Consideration is being given to the landing of unmanned instrumented probes on the surfaces of neighboring planets, such as Mars and Venus (refs. 1 and 2). The tenuous atmospheres associated with these planets have resulted in entry designs having low ballistic coefficients and utilizing retardation devices, such as parachutes, to effect a soft landing. Various studies (refs. 3 and 4, for example) have shown the necessity for deploying the terminal decelerator system at supersonic speeds. Since the design of an efficient decelerator system is dependent upon adequate knowledge of the flow field in which it must function, it is desirable to obtain flow properties in the wake of a typical entry configuration traveling at supersonic speeds.

Accordingly, an investigation has been conducted to obtain flow properties in the wake of a 120° included-angle cone at a free-stream Mach number of 2.20. The flow properties were calculated from pressures measured with a pressure rake at various locations in the wake. Free-stream Reynolds number based on model (base) diameter was 0.66×10^6 for the study.

SYMBOLS

D	cone base diameter
M	Mach number
ΔM	Mach number defect, $M_\infty - M_1$
p	static pressure
q	dynamic pressure
Δq	dynamic-pressure defect, $q_\infty - q_1$
T	ambient (static) temperature
V	velocity
ΔV	velocity defect, $V_\infty - V_1$
x,y,z	coordinates of pressure orifices (origin of axis system at center of cone base)

Subscripts:

1	conditions in wake
∞	conditions in free stream
max	maximum

APPARATUS AND TESTS

Wind Tunnel

Tests were performed in the test section of the Langley 4- by 4-foot (1.22- by 1.22-m) supersonic pressure tunnel which is a variable-pressure continuous-flow facility. The nozzle leading to the test section is symmetrical and may be manually changed to provide Mach numbers from about 1.40 to 2.20.

Model and Instrumentation

Details of the cone model and model support system are shown in figure 1. The cone had an apex angle of 120° along with a sharp nose and shoulder. It was constructed of polished aluminum, the base diameter being 4.80 inches (12.19 cm). The cone model was supported in the test section by a horizontal cantilevered strut having a sharp leading edge with a maximum cross-sectional thickness of about 0.375 inch (0.953 cm). Use of this wall-mounted support system eliminated the possibility of obtaining schlieren photographs during the tests.

A pressure rake, illustrated in figure 2, was used to perform the wake survey behind the 120° cone. The rake was 10.00 inches (25.40 cm) high and was composed of 41 total-pressure tubes 0.25 inch (0.64 cm) apart and 21 static-pressure tubes 0.50 inch (1.27 cm) apart. The rake was connected to a sting which in turn was connected to a standard sting support system.

The pressures were recorded by using three 48-channel pressure sampling gages each of which sequentially transmits each pressure sampling to an electrical pressure transducer. The transducer transforms the pressure information into an electrical signal which is then recorded in digital form on punch cards. The two gages used to record total pressures had a maximum range of 7.50 lb/sq in. (5.17 N/sq cm) absolute, while the one gage used to record static pressures had a maximum range of 2.00 lb/sq in. (1.38 N/sq cm) absolute.

Accuracy and Test Conditions

Accuracy of the pressure sampling valves is within 1 percent of the full-scale range of the gage; this includes all errors of linearity, hysteresis, and repeatability. The free-stream stagnation pressure was measured with a precision mercury manometer, the accuracy of which is ±0.50 lb/sq ft (±23.94 N/sq m).

The free-stream test conditions for the cone model were as follows:

Mach number	2.20
Reynolds number based on model (base) diameter	0.66×10^{6}
Stagnation pressure, lb/sq in. (N/sq cm)	7.50 (5.17)
Stagnation temperature, $^{\circ}$F ($^{\circ}$K)	110 (316.5)

The schematic drawing in figure 3 (obtained from schlieren photographs presented in ref. 5) illustrates the general nature of the flow field around a 120° cone at $M_{\infty} = 2.30$. Also shown are the three longitudinal stations aft of the 120° cone at which pressure data were obtained. At each longitudinal station the pressure rake was traversed to provide data at lateral locations in the wake ranging from $y/D = -0.40$ to $y/D = 3.00$. In order

to minimize the possible effects of bow shock reflection off of the tunnel wall and of support strut interference, the major portion of the wake surveyed was that which is away from the wall (+y). (See fig. 1.)

TABULATION OF EXPERIMENTAL DATA

Flow properties calculated from measured total and static pressures in the wake of the 120° cone are presented in tables I to III. The tabulations consist of the local flow properties of Mach number, static and dynamic pressure, velocity, and ambient temperature, each of which is nondimensionalized by its respective free-stream value. Each set of data is identified by the necessary geometric information to define its location in the flow field aft of the 120° cone. The appropriate normal shock expressions and isentropic flow relations were used in conjunction with the measured total and static pressures to obtain the desired flow properties. Stagnation temperature in the wake was assumed to be equivalent to that in free stream.

It should be pointed out that the design of the pressure rake results in an inherent displacement distance between the total and static pressure tubes of about 0.50 inch (1.27 cm). This displacement has been accounted for such that the total and static pressures used to calculate the flow properties result from identical locations in the flow field. No attempt was made to adjust the data for interference effects which might have resulted because of shock interaction between the pressure tubes.

RESULTS AND DISCUSSION

Results typical of the data listed in tables I to III are presented in the following discussion.

Wake Signatures at Several x/D Locations

The variation of the flow properties across the wake is shown in figure 4 at the three longitudinal stations surveyed ($y/D = 0$). These wake signatures indicate that the largest variations of the properties across the wake occur at the longitudinal station nearest to the neck-down region of the wake ($x/D = 2.50$). The large gradients existing at this x/D location are due to a recompression region near the wake center and to the proximity of the trailing shock (as illustrated in fig. 3). The wake profiles tend to smooth out farther downstream ($x/D = 5.00$ and 8.39) to the extent that the static pressure p_1/p_∞ becomes essentially constant across the wake. The lack of radial static-pressure gradients provides an important simplification when the wake flow field is analyzed by using boundary-layer theory (ref. 6). Also, a constant static pressure is beneficial for calculating pressure distributions on a body (decelerator) immersed in the wake.

The data in figure 4(a) show that for each x/D location the minimum dynamic pressure occurs at the wake center. An increase in distance away from the center generally results in a continual increase in dynamic pressure. An increase in z/D beyond that attainable with the pressure rake ($z/D \approx 1.04$) would result in a further increase in dynamic pressure, which would approach the free-stream value of dynamic pressure at the wake boundary (represented by the bow shock in fig. 3). These trends in dynamic pressure are similar to those for Mach number and velocity in figure 4(b).

The values of dynamic pressure, Mach number, and velocity at the wake center ($z/D = 0$; $y/D = 0$) are seen in figure 4 to increase with increase in x/D. These properties would approach free-stream values at some x/D location greater than those tested in the present study. For $x/D = 2.50$, dynamic pressure is only about 30 percent of the free-stream value and Mach number is only slightly greater than unity. An increase in x/D to 5.00 results in an increase in q at the wake center to almost 60 percent of q_∞ and an increase in Mach number to about 1.60. These trends are illustrated in figure 5 where dynamic pressure, Mach number, and velocity at the wake center are presented as functions of x/D. Also shown in figure 5 are the properties at the wake center in the form of differences or defects from their respective free-stream values. Since the center-line properties represent minimum values at a particular x/D in the wake, the defects represent maximum values by definition. The trends of these defects with x/D are opposite those discussed for the properties with x/D; that is, the defects are largest at $x/D = 2.50$, and they decrease with an increase in x/D. The Mach number and velocity defects appear to be linear with x/D. These results are similar to those obtained behind cone bodies at subsonic speeds in reference 7.

Empirical Velocity Profiles

An attempt was made to describe empirically the velocity distributions across the wake at the various x/D locations where experimental data were obtained. Emphasis was placed on the data obtained at the larger x/D locations, primarily because of the similarity of their velocity profiles. The velocity defect used as the correlating parameter is defined as

$$\Delta V = V_\infty - V_1$$

or

$$\frac{\Delta V}{V_\infty} = 1 - \frac{V_1}{V_\infty}$$

Observation of the velocity data in figure 4(b) indicates that the maximum velocity defect $(\Delta V)_{max}$ occurs at the wake center with the velocity defect continually decreasing with an increase in z/D. These trends suggest an exponential expression of the form

$$\frac{\Delta V}{V_\infty} = e^{a+b(z/D)+c(z/D)^2} \tag{1}$$

The constants a, b, and c were calculated for each of the x/D locations shown in figure 4(b) by using the method of least squares and are listed as follows:

x/D	a	b	c
2.50	-0.998	-0.113	-7.409
5.00	-1.686	-1.398	.385
8.39	-2.121	-1.295	-.016

This empirical representation of velocity distribution is shown in figure 6 to provide excellent agreement with the experimental data at $x/D = 5.00$ and 8.39; the agreement is not as good at $x/D = 2.50$. These results substantiate the premise that wake velocity appears to be an exponential function of z/D at x/D locations suitably downstream of the recompression region.

In order to obtain an expression which depicts wake velocity as a function of x/D, as well as z/D, it is necessary to determine the dependence of the constants (eq. (1)) on x/D. In order to do this, it was found that a simple expression results if the constants are evaluated by using the following boundary conditions suggested by the experimental data:

At $z/D = 0$

$$\frac{\Delta V}{V_\infty} = \frac{(\Delta V)_{max}}{V_\infty}$$

At $z/D = 0$

$$\frac{d(\Delta V/V_\infty)}{d(z/D)} = 0$$

At $z/D = 1.0$

$$\frac{\Delta V}{V_\infty} = \frac{1}{3}\frac{(\Delta V)_{max}}{V_\infty}$$

By using these conditions equation (1) becomes

$$\frac{\Delta V}{V_\infty} = \frac{(\Delta V)_{max}}{V_\infty} e^{-1.10(z/D)^2} \tag{2}$$

An expression is obtained describing $(\Delta V)_{max}/V_\infty$ as a function of x/D by recalling the linear nature of $(\Delta V)_{max}/V_\infty$ with x/D in figure 5. This linearity on a log-log scale results in a power-law relationship of the form

$$\frac{(\Delta V)_{max}}{V_\infty} = d\left(\frac{x}{D}\right)^n \tag{3}$$

where n is the slope of the straight line. Evaluation of the constants d and n yields

$$\frac{(\Delta V)_{max}}{V_\infty} = 0.68\left(\frac{x}{D}\right)^{-0.815} \tag{4}$$

so that the velocity defect, described as a function of x/D and z/D, becomes

$$\frac{\Delta V}{V_\infty} = 0.68\left(\frac{x}{D}\right)^{-0.815} e^{-1.100(z/D)^2} \tag{5}$$

In terms of velocity, this dependence on x/D and z/D is

$$\frac{V_1}{V_\infty} = 1 - 0.68\left(\frac{x}{D}\right)^{-0.815} e^{-1.100(z/D)^2} \tag{6}$$

The values of V_1/V_∞ predicted by equation (6) are shown in figure 7 to be in good agreement with the experimental data at $x/D = 5.00$ and 8.39, although this agreement is not as good as that previously demonstrated by the least-squares method. As was expected, poor agreement exists between the experimental values at $x/D = 2.50$ and those predicted by equation (6). This empirical expression also can be used to estimate velocity profiles at x/D locations greater than 8.39.

Wake Signatures at Several y/D Locations

The variations of the static and dynamic pressures across the wake are shown in figure 8 for selected y/D locations from 0 to 2.00 at the three longitudinal stations investigated. Mach number and velocity profiles are not presented because the trends of these properties have been shown previously to be similar to those of dynamic pressure. The static- and dynamic-pressure signatures at $x/D = 2.50$ show definite decreases in the magnitude of pressure gradients with an increase in y/D. An increase in x/D tends to accentuate this trend such that both the static- and dynamic-pressure signatures are essentially constant at the largest x/D and y/D station shown. (See fig. 8(c).)

CONCLUDING REMARKS

An investigation has been conducted to obtain flow properties in the wake of a 120° cone at a free-stream Mach number of 2.20. Measured total and static pressures were used to calculate the appropriate flow properties which are presented in tabular form.

Results typical of these tabulated data indicate that the largest gradients in the flow properties occur at the location in the wake near the neck-down or recompression region. The wake profiles tend to smooth out farther downstream to the extent that static pressure becomes essentially constant across the wake. Velocity distributions at these distances were predicted empirically by considering velocity as a power-law function of longitudinal distance from the cone and as an exponential function of radial distance from the wake center.

Langley Research Center,
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TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50

(a) y/D = -0.40

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.715827	1.0949178	.9101620	1.0445780	.5860652	1.040
.699528	1.1950157	.8247506	1.0852629	.4807934	.988
.688823	1.3417963	.7156544	1.1351108	.3755216	.936
.673592	1.2483844	.7829516	1.1046274	.4242295	.884
.658319	1.1688715	.8461600	1.0752093	.4729373	.832
.648559	1.1563392	.8566451	1.0702512	.4760797	.780
.636895	1.1421312	.8687086	1.0645181	.4792222	.728
.621285	1.1509158	.8612277	1.0680770	.4603675	.676
.617085	1.1712543	.8441828	1.0761417	.4415129	.624
.802967	1.0374989	.9634594	1.0183671	.7321886	.572
.782542	.8665534	1.1410894	.9256678	1.0228644	.520
.775352	.8464628	1.1637760	.9131510	1.0621449	.468
.773876	.8304407	1.1821240	.9029010	1.1014254	.416
.775111	.8281544	1.1847602	.9014187	1.1092815	.364
.776344	.8258939	1.1873711	.8999482	1.1171376	.312
.773201	.8190525	1.1952995	.8954681	1.1312786	.260
.771969	.8133324	1.2019587	.8916879	1.1454196	.208
.773474	.8124549	1.2029827	.8911051	1.1501332	.156
.767313	.8075595	1.2087069	.8878406	1.1548469	.104
.706269	.7760917	1.2459613	.8662940	1.1509188	.052
.744995	.7984488	1.2194121	.8817030	1.1469908	0.000
.769504	.8098143	1.2060679	.8893471	1.1517044	-.052
.769093	.8079458	1.2082544	.8880991	1.1564181	-.104
.773269	.8193733	1.1949269	.8956792	1.1304930	-.156
.777433	.8311622	1.1812929	.9033677	1.1045678	-.208
.780095	.8358598	1.1758932	.9063947	1.0959261	-.260
.775099	.8364834	1.1751778	.9067950	1.0872844	-.312
.777197	.8471564	1.1629867	.9135893	1.0629305	-.364
.779287	.8581829	1.1504976	.9204977	1.0385766	-.416
.800360	.9708048	1.0294013	.9849729	.8335323	-.468
.603807	.9710707	1.0291298	.9851127	.6284881	-.520
.619838	1.0525612	.9491687	1.0254608	.5491415	-.572
.641453	1.1576540	.8555382	1.0707757	.4697949	-.624
.642143	1.1690786	.8459880	1.0752904	.4611531	-.676
.654241	1.1912541	.8277927	1.0838400	.4525114	-.728
.661558	1.1630820	.8509857	1.0729302	.4800078	-.780
.670772	1.1389850	.8714054	1.0632323	.5075041	-.832
.682766	1.1308883	.8783884	1.0598954	.5240020	-.884
.706173	1.1324215	.8770614	1.0605304	.5404998	-.936
.719886	1.1009734	.9047266	1.0472142	.5829227	-.988
.741202	1.0785953	.9249883	1.0373531	.6253457	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(b) y/D = 0

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.760470	1.0253982	.9751006	1.0125518	.7099010	1.040
.747254	1.1331815	.8764045	1.0608445	.5711758	.988
.741359	1.2971684	.7469033	1.1210592	.4324506	.936
.720723	1.1585882	.8547528	1.0711477	.5270007	.884
.709351	1.0583825	.9437048	1.0281600	.6215509	.832
.708218	.9933465	1.0066272	.9966326	.7044760	.780
.746563	.9646851	1.0356696	.9817394	.7874011	.728
.771632	.9206398	1.0818549	.9575782	.8935762	.676
.783418	.8770032	1.1294333	.9320334	.9997514	.624
.787602	.8624583	1.1456842	.9231464	1.0392764	.572
.786101	.8457049	1.1646388	.9126715	1.0788015	.520
.783494	.8327167	1.1795039	.9043717	1.1090265	.468
.775196	.8172338	1.1974139	.8942696	1.1392516	.416
.752546	.8054801	1.2111443	.8864469	1.1384766	.364
.663479	.7565711	1.2694515	.8524282	1.1377016	.312
.524407	.6730799	1.3727015	.7885961	1.1361516	.260
.367598	.5639168	1.5118067	.6933670	1.1346016	.208
.286929	.4973656	1.5964238	.6284197	1.1384766	.156
.310907	.5168512	1.5718077	.6479854	1.1423516	.104
.330570	.5320433	1.5525054	.6629236	1.1462266	.052
.307954	.5126552	1.5771233	.6438107	1.1501016	0.000
.276974	.4884952	1.6075642	.6193619	1.1392516	-.052
.292747	.5046199	1.5872808	.6357572	1.1284016	-.104
.379550	.5767664	1.4953583	.7052979	1.1198766	-.156
.558069	.7020512	1.3364222	.8115973	1.1113516	-.208
.702275	.7856349	1.2345811	.8729323	1.1167766	-.260
.766269	.8186637	1.1957513	.8952122	1.1222016	-.312
.780603	.8308884	1.1816082	.9031907	1.1098015	-.364
.783568	.8371549	1.1744079	.9072256	1.0974015	-.416
.788394	.8530882	1.1562546	.9173196	1.0633015	-.468
.781858	.8635035	1.1445101	.9237914	1.0292014	-.520
.782258	.9170683	1.0856816	.9555489	.9129513	-.572
.769307	.9735369	1.0266147	.9864070	.7967011	-.624
.713945	.9908358	1.0091392	.9953532	.7137760	-.676
.713193	1.0533931	.9483859	1.0258479	.6308509	-.728
.709479	1.0324174	.9683304	1.0159378	.6533259	-.780
.717061	1.0205143	.9798395	1.0101749	.6758009	-.832
.731497	1.0248758	.9756063	1.0122984	.6835510	-.884
.749700	1.0317167	.9690042	1.0156014	.6913010	-.936
.762996	1.0248643	.9756174	1.0122928	.7130010	-.988
.783826	1.0233045	.9771293	1.0115350	.7347010	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(c) y/D = 0.21

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.691381	.9520714	1.0487046	.9749809	.7486510	1.040
.688544	1.0614379	.9408501	1.0295675	.5998508	.988
.777444	1.3006855	.7443816	1.1221996	.4510506	.936
.767614	1.1446393	.8665653	1.0655389	.5750508	.884
.767000	1.0377519	.9632175	1.0184876	.6990510	.832
.770951	.9941092	1.0058653	.9970203	.7657011	.780
.771089	.9535631	1.0471551	.9757868	.8323512	.728
.775597	.9127681	1.0903052	.9530912	.9137263	.676
.781926	.8782122	1.1280913	.9327635	.9951014	.624
.785911	.8624977	1.1456399	.9231707	1.0369514	.572
.786101	.8457049	1.1646388	.9126715	1.0788015	.520
.787209	.8343972	1.1775723	.9054545	1.1098015	.468
.784523	.8215768	1.1923696	.8971264	1.1408016	.416
.778981	.8192265	1.1950975	.8955826	1.1392516	.364
.752614	.8057907	1.2107800	.8866554	1.1377016	.312
.687230	.7736919	1.2488340	.8646103	1.1268516	.260
.581721	.7152789	1.3200048	.8217944	1.1160016	.208
.443537	.6190096	1.4413155	.7431508	1.1361516	.156
.375096	.5642692	1.5113558	.6936968	1.1563016	.104
.358866	.5510037	1.5283191	.6811795	1.1601766	.052
.374255	.5617564	1.5145708	.6913418	1.1640516	0.000
.443134	.6160030	1.4451548	.7405255	1.1462266	-.052
.543083	.6873083	1.3548321	.8000081	1.1284016	-.104
.637873	.7495265	1.2779960	.8473283	1.1144516	-.156
.730260	.8070378	1.2093181	.8874914	1.1005015	-.208
.769106	.8241718	1.1893632	.8988247	1.1113516	-.260
.785209	.8287198	1.1841079	.9017857	1.1222016	-.312
.788042	.8342558	1.1777348	.9053635	1.1113516	-.364
.788979	.8388564	1.1724587	.9083148	1.1005015	-.416
.788394	.8530882	1.1562546	.9173196	1.0633015	-.468
.782123	.8649533	1.1428829	.9246844	1.0261014	-.520
.789678	.9095178	1.0938115	.9512232	.9369763	-.572
.785809	.9537819	1.0469280	.9759048	.8478512	-.624
.776049	.9859805	1.0140145	.9928655	.7835261	-.676
.770024	1.0251261	.9753640	1.0124198	.7192010	-.728
.758214	1.0128778	.9872962	1.0064236	.7254010	-.780
.674762	.9514558	1.0493447	.9746478	.7316010	-.832
.676884	.9700566	1.0301657	.9845791	.7060260	-.884
.690303	.9978648	1.0021220	.9989230	.6804509	-.936
.702903	1.0561982	.9457511	1.0271500	.6184509	-.988
.721082	1.1277928	.8810745	1.0586091	.5564508	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(d) y/D = 0.42

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.717469	1.0751962	.9281080	1.0358264	.6091560	1.040
.707950	1.1602029	.8533970	1.0717896	.5162206	.988
.705886	1.2793841	.7598117	1.1152030	.4232853	.936
.693396	1.1836651	.8339690	1.0809455	.4857628	.884
.682733	1.1055800	.9006154	1.0492037	.5482404	.832
.674658	1.0493733	.9521749	1.0239726	.6013463	.780
.675990	1.0068888	.9931841	1.0034515	.6544522	.728
.790419	.9689897	1.0312567	.9840169	.8262654	.676
.800644	.8873352	1.1180072	.9382315	.9980786	.624
.800551	.8770492	1.1293822	.9320612	1.0215077	.572
.800451	.8671072	1.1404691	.9260076	1.0449368	.520
.797845	.8533472	1.1559615	.9174817	1.0753946	.468
.797125	.8411334	1.1698542	.9097682	1.1058524	.416
.795091	.8394672	1.1717596	.9087051	1.1074143	.364
.794956	.8388047	1.1725179	.9082818	1.1089762	.312
.794147	.8348576	1.1770436	.9057507	1.1183479	.260
.791437	.8299616	1.1826760	.9025908	1.1277195	.208
.785534	.8260032	1.1872448	.9000194	1.1300624	.156
.781530	.8230427	1.1906705	.8980865	1.1324053	.104
.781463	.8227234	1.1910405	.8978775	1.1331863	.052
.783295	.8234038	1.1902523	.8983227	1.1339673	0.000
.784031	.8226578	1.1911164	.8978346	1.1370911	-.052
.789479	.8243798	1.1891224	.8989605	1.1402150	-.104
.793616	.8360394	1.1756871	.9065101	1.1144430	-.156
.795837	.8470600	1.1630964	.9135284	1.0886710	-.208
.797876	.8487534	1.1611712	.9145968	1.0871091	-.260
.798010	.8494353	1.1603968	.9150262	1.0855472	-.312
.799551	.8573779	1.1514056	.9199971	1.0675849	-.364
.799184	.8644845	1.1434089	.9243958	1.0496226	-.416
.801979	.8798514	1.1262737	.9337514	1.0168219	-.468
.800955	.8938245	1.1108813	.9420763	.9840212	-.520
.729844	.9664798	1.0338276	.9826907	.7669117	-.572
.683114	1.1043169	.9017406	1.0486596	.5498023	-.624
.680645	1.1191374	.8886330	1.0549810	.5334020	-.676
.685748	1.1410027	.8696748	1.0640576	.5170016	-.728
.683428	1.1085145	.8980070	1.0504641	.5458975	-.780
.688676	1.0844311	.9196579	1.0399564	.5747933	-.832
.700799	1.1029626	.9029488	1.0480750	.5654217	-.884
.712917	1.1217935	.8863060	1.0560993	.5560501	-.936
.723340	1.1182461	.8894155	1.0546047	.5677646	-.988
.735656	1.1162693	.8911534	1.0537685	.5794791	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(e) y/D = 0.63

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.738823	1.0693640	.9334871	1.0331889	.6341470	1.040
.730837	1.1471386	.8644355	1.0665524	.5451165	.988
.726555	1.2504356	.7813950	1.1053420	.4560860	.936
.710861	1.1687914	.8462266	1.0751779	.5107538	.884
.697010	1.0999772	.9056184	1.0467821	.5654217	.832
.691453	1.0970998	.9081994	1.0455306	.5638598	.780
.685896	1.0941987	.9108098	1.0442634	.5622978	.728
.682107	1.0911723	.9135415	1.0429356	.5622978	.676
.680212	1.0896559	.9149135	1.0422680	.5622978	.624
.678128	1.0857260	.9184796	1.0405310	.5646407	.572
.681728	1.0863526	.9179101	1.0408086	.5669836	.520
.725737	.9914000	1.0085741	.9956412	.7247394	.468
.767688	.9240309	1.0782327	.9594951	.8824952	.416
.787475	.9173775	1.0853497	.9557250	.9184198	.364
.793955	.9036408	1.1001769	.9478226	.9543443	.312
.800559	.8914833	1.1134477	.9406934	.9887070	.260
.795740	.8737421	1.1330601	.9300574	1.0230696	.208
.793438	.8704862	1.1366909	.9280750	1.0277554	.156
.794941	.8693310	1.1379814	.9273694	1.0324413	.104
.797709	.8751566	1.1314858	.9309157	1.0222887	.052
.798572	.8800108	1.1260971	.9338474	1.0121361	0.000
.796114	.8756203	1.1309702	.9311966	1.0191648	-.052
.795516	.8722884	1.1346800	.9291735	1.0261935	-.104
.796793	.8893842	1.1157530	.9394495	.9887070	-.156
.794244	.9052878	1.0983897	.9487786	.9512205	-.208
.796326	.9419425	1.0592835	.9694613	.8809332	-.260
.781234	.9725800	1.0275898	.9859053	.8106460	-.312
.731359	1.0122846	.9878778	1.0061304	.7005294	-.364
.681438	1.0643533	.9381347	1.0309045	.5904127	-.416
.673524	1.0760969	.9272802	1.0362317	.5708885	-.468
.675101	1.0962651	.9089496	1.0451666	.5513642	-.520
.681175	1.1058942	.9003356	1.0493390	.5466784	-.572
.685348	1.1140619	.8930984	1.0528317	.5419926	-.624
.693380	1.1262651	.8824034	1.0579721	.5365258	-.676
.701410	1.1385835	.8717503	1.0630677	.5310590	-.728
.702698	1.1075197	.8988903	1.0500375	.5622978	-.780
.707772	1.0818659	.9219969	1.0388149	.5935366	-.832
.723466	1.0995972	.9059588	1.0466172	.5872888	-.884
.737258	1.1159804	.8914076	1.0536461	.5810411	-.936
.745053	1.1020459	.9037676	1.0476786	.6021272	-.988
.756642	1.0916346	.9131237	1.0431388	.6232134	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(f) y/D = 0.83

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.768253	1.0620589	.9402710	1.0298528	.6685096	1.040
.759964	1.1307575	.8785017	1.0598412	.5833840	.988
.755390	1.2198565	.8049811	1.0944643	.4982583	.936
.741698	1.1490650	.8627978	1.0673310	.5513642	.884
.727960	1.0872182	.9171239	1.0411917	.6044701	.832
.721075	1.0898369	.9147497	1.0423478	.5958795	.780
.712296	1.0910756	.9136289	1.0428930	.5872888	.728
.704970	1.0883486	.9160981	1.0416913	.5841650	.676
.697644	1.0855854	.9186075	1.0404686	.5810411	.624
.694990	1.0968679	.9084078	1.0454295	.5669836	.572
.692334	1.1085991	.8979319	1.0505003	.5529262	.520
.685202	1.0853857	.9187891	1.0403801	.5708885	.468
.679959	1.0646062	.9378996	1.0310202	.5888508	.416
.679202	1.0769464	.9265002	1.0366135	.5747933	.364
.680338	1.0912736	.9134499	1.0429801	.5607359	.312
.678633	1.0921891	.9126227	1.0433823	.5583930	.260
.675033	1.0915809	.9131722	1.0431152	.5560501	.208
.671939	1.0748297	.9284451	1.0356614	.5708885	.156
.670736	1.0601779	.9420262	1.0289879	.5857269	.104
.674272	1.1050227	.9011117	1.0489638	.5419926	.052
.675886	1.1538780	.8587213	1.0692667	.4982583	0.000
.675903	1.1319285	.8774879	1.0603264	.5177826	-.052
.674335	1.1098829	.8967934	1.0510500	.5373068	-.104
.674084	1.1064642	.8998285	1.0495841	.5404307	-.156
.668137	1.0984025	.9070299	1.0460979	.5435546	-.208
.677692	1.1070245	.8993303	1.0498248	.5427736	-.260
.679653	1.1094236	.8972005	1.0508534	.5419926	-.312
.677252	1.1011334	.9045834	1.0472835	.5482404	-.364
.688139	1.1036781	.9023103	1.0483840	.5544881	-.416
.693268	1.1008286	.9048562	1.0471514	.5615168	-.468
.698398	1.0980423	.9073531	1.0459411	.5685456	-.520
.705803	1.1015810	.9041832	1.0474774	.5708885	-.572
.713208	1.1050793	.9010612	1.0489882	.5732314	-.624
.722700	1.1124085	.8945583	1.0521281	.5732314	-.676
.732191	1.1196892	.8881491	1.0552137	.5732314	-.728
.735875	1.0988059	.9066681	1.0462733	.5982224	-.780
.743351	1.0820041	.9218707	1.0388765	.6232134	-.832
.756768	1.0930962	.9118040	1.0437803	.6216515	-.884
.770184	1.1041305	.9019068	1.0485792	.6200895	-.936
.775321	1.0815627	.9222737	1.0386797	.6505473	-.988
.788048	1.0657404	.9368457	1.0315386	.6810051	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(g) y/D = 1.04

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.807095	1.0610492	.9412128	1.0293888	.7036464	1.040
.798942	1.1274919	.8813361	1.0584838	.6168633	.988
.794505	1.2129078	.8104557	1.0919240	.5300803	.936
.780555	1.1430504	.8679224	1.0648927	.5863720	.884
.766556	1.0820079	.9218672	1.0388782	.6426637	.832
.760051	1.0887243	.9157576	1.0418571	.6293726	.780
.753546	1.0956861	.9094705	1.0449138	.6160815	.728
.746094	1.0916413	.9131176	1.0431417	.6145178	.676
.738642	1.0875606	.9168130	1.0413431	.6129542	.624
.732200	1.0954559	.9096776	1.0448132	.5988812	.572
.727651	1.1051093	.9010345	1.0490011	.5848083	.520
.719696	1.0946700	.9103852	1.0444696	.5894993	.468
.715528	1.0871788	.9171596	1.0411743	.5941903	.416
.714580	1.0973412	.9079826	1.0456358	.5824628	.364
.711736	1.1063499	.8999302	1.0495350	.5707354	.312
.706620	1.1092252	.8973764	1.0507685	.5636989	.260
.705292	1.1151643	.8921265	1.0532999	.5566625	.208
.702139	1.0973631	.9079629	1.0456454	.5722990	.156
.700876	1.0816985	.9221498	1.0387402	.5879356	.104
.702132	1.1205604	.8873855	1.0555807	.5488442	.052
.707155	1.1668844	.8478128	1.0744292	.5097527	0.000
.705659	1.1481728	.8635559	1.0669707	.5253893	-.052
.706305	1.1319765	.8774463	1.0603462	.5410259	-.104
.707701	1.1266014	.8821107	1.0581125	.5472805	-.156
.703403	1.1168111	.8906766	1.0539979	.5535351	-.208
.714272	1.1433103	.8677003	1.0649985	.5363349	-.260
.719442	1.1662942	.8483044	1.0741971	.5191346	-.312
.721112	1.1388538	.8715181	1.0631785	.5457168	-.364
.728469	1.1177494	.8898517	1.0543949	.5722990	-.416
.734742	1.1067876	.8995409	1.0497231	.5887175	-.468
.739114	1.0949133	.9101660	1.0445760	.6051359	-.520
.748166	1.0966495	.9086040	1.0453343	.6106087	-.572
.755319	1.0969744	.9083121	1.0454759	.6160815	-.624
.764811	1.1038460	.9021605	1.0484565	.6160815	-.676
.774303	1.1106747	.8960920	1.0513884	.6160815	-.728
.778298	1.0949358	.9101458	1.0445858	.6371909	-.780
.787986	1.0839212	.9201223	1.0397298	.6583003	-.832
.801025	1.0902656	.9143616	1.0425366	.6614276	-.884
.812165	1.0952343	.9098771	1.0447163	.6645549	-.936
.817170	1.0730296	.9301024	1.0348493	.6966099	-.988
.827865	1.0560057	.9459316	1.0270608	.7286649	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(h) y/D = 1.67

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.945780	.9922381	1.0077354	.9960684	.9428861	1.040
.944001	1.0593724	.9427789	1.0286167	.8256117	.988
.943991	1.1437056	.8673625	1.0651593	.7083373	.936
.929182	1.0688871	.9339284	1.0329722	.7982477	.884
.918064	1.0072602	.9928179	1.0036366	.8881581	.832
.913470	1.0123401	.9878234	1.0061578	.8748670	.780
.906980	1.0164887	.9837632	1.0082027	.8615759	.728
.899595	1.0137223	.9864688	1.0068405	.8592304	.676
.895998	1.0130774	.9871006	1.0065221	.8568849	.624
.892849	1.0159412	.9842981	1.0079335	.8490666	.572
.889700	1.0188498	.9814600	1.0093609	.8412483	.520
.884337	1.0181427	.9821492	1.0090144	.8373392	.468
.878974	1.0174284	.9828459	1.0086641	.8334300	.416
.877783	1.0220258	.9783704	1.0109124	.8248299	.364
.876592	1.0266985	.9738428	1.0131817	.8162298	.312
.873442	1.0297962	.9708530	1.0146775	.8084115	.260
.872186	1.0340680	.9667454	1.0167289	.8005932	.208
.869463	1.0259602	.9745567	1.0128242	.8107570	.156
.868632	1.0191018	.9812144	1.0094843	.8209207	.104
.870420	1.0340307	.9667813	1.0167110	.7990295	.052
.872203	1.0495666	.9519922	1.0240631	.7771383	0.000
.872637	1.0435477	.9576939	1.0212349	.7865203	-.052
.875673	1.0391818	.9618517	1.0191675	.7959022	-.104
.877191	1.0370304	.9639075	1.0181439	.8005932	-.156
.876808	1.0337800	.9670218	1.0165910	.8052842	-.208
.879779	1.0290563	.9715663	1.0143208	.8154479	-.260
.882750	1.0244276	.9760405	1.0120808	.8256117	-.312
.888323	1.0266847	.9738561	1.0131751	.8271754	-.364
.893897	1.0289284	.9716897	1.0142591	.8287390	-.416
.895908	1.0167440	.9835139	1.0083281	.8506303	-.468
.899816	1.0060955	.9939666	1.0030558	.8725215	-.520
.906458	1.0030830	.9969438	1.0015491	.8842489	-.572
.909297	.9980560	1.0019319	.9990195	.8959764	-.624
.918032	.9976288	1.0023569	.9988037	.9053583	-.676
.924865	.9961867	1.0037929	.9980741	.9147403	-.728
.928411	.9963925	1.0035878	.9981784	.9178676	-.780
.933858	.9976130	1.0023726	.9987957	.9209949	-.832
.942400	.9958450	1.0041334	.9979011	.9327223	-.884
.945238	.9911318	1.0088427	.9955043	.9444498	-.936
.950975	.9824132	1.0176112	.9910262	.9671228	-.988
.958613	.9749877	1.0251378	.9871662	.9897959	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Continued

(i) y/D = 2.08

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
1.041804	.9432544	1.0579077	.9701809	1.1492890	1.040
1.048470	1.0265761	.9739611	1.0131225	.9765048	.988
1.054870	1.1350038	.8748313	1.0615965	.8037205	.936
1.037112	1.0334877	.9673024	1.0164510	.9530499	.884
1.022921	.9543461	1.0463426	.9762091	1.1023793	.832
1.019384	.9540487	1.0466511	.9760488	1.0992520	.780
1.015846	.9537495	1.0469615	.9758874	1.0961247	.728
1.010670	.9540423	1.0466577	.9760453	1.0898700	.676
1.005493	.9543384	1.0463505	.9762050	1.0836154	.624
1.001761	.9529093	1.0478339	.9754338	1.0828336	.572
.999927	.9523807	1.0483832	.9751481	1.0820517	.520
.997898	.9507273	1.0501027	.9742532	1.0836154	.468
.993971	.9481705	1.0527670	.9728650	1.0851790	.416
.993632	.9563128	1.0443044	.9772676	1.0664151	.364
.993290	.9646728	1.0356823	.9817328	1.0476512	.312
.991780	.9661048	1.0342122	.9824921	1.0429603	.260
.992169	.9684744	1.0317840	.9837450	1.0382693	.208
.987725	.9626852	1.0377260	.9806762	1.0460876	.156
.987076	.9587929	1.0417394	.9785981	1.0539059	.104
.987530	.9615131	1.0389330	.9800517	1.0484331	.052
.987984	.9642539	1.0361127	.9815104	1.0429603	0.000
.986616	.9639473	1.0364278	.9813475	1.0421784	-.052
.990485	.9661983	1.0341163	.9825417	1.0413966	-.104
.992388	.9671257	1.0331653	.9830325	1.0413966	-.156
.994290	.9680523	1.0322162	.9835221	1.0413966	-.208
.993577	.9637342	1.0366469	.9812342	1.0499967	-.260
.998572	.9622209	1.0382040	.9804290	1.0585969	-.312
1.001729	.9602013	1.0402855	.9793514	1.0664151	-.364
1.004885	.9582069	1.0423449	.9782841	1.0742334	-.416
1.007262	.9517501	1.0490387	.9748071	1.0914337	-.468
1.011540	.9463414	1.0546769	.9718687	1.1086339	-.520
1.016924	.9471881	1.0537924	.9723302	1.1125431	-.572
1.028017	.9506716	1.0501607	.9742231	1.1164522	-.624
1.022844	.9413798	1.0598740	.9691523	1.1328706	-.676
1.025281	.9357443	1.0658059	.9660425	1.1492890	-.728
1.030600	.9362597	1.0652621	.9663280	1.1539800	-.780
1.034016	.9359096	1.0656314	.9661341	1.1586710	-.832
1.038747	.9333369	1.0683491	.9647061	1.1703984	-.884
1.043478	.9308083	1.0710264	.9632973	1.1821259	-.936
1.047555	.9250087	1.0771903	.9600460	1.2016716	-.988
1.051629	.9193591	1.0832257	.9568517	1.2212173	-1.040

TABLE I.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 2.50 - Concluded

(j) y/D = 2.58

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
1.134032	.8908382	1.1141557	.9403116	1.4025828	1.040
1.146566	.9843231	1.0156841	.9920121	1.1615139	.988
1.164295	1.1142510	.8929315	1.0529121	.9204449	.936
1.142415	.9905826	1.0093929	.9952239	1.1427293	.884
1.123883	.8989642	1.1052653	.9450955	1.3650136	.832
1.121450	.8959383	1.1085686	.9433208	1.3712751	.780
1.117114	.8921697	1.1126948	.9410993	1.3775367	.728
1.114498	.8957166	1.1088110	.9431904	1.3634482	.676
1.113784	.9000921	1.1040362	.9457549	1.3493598	.624
1.113123	.8972266	1.1071611	.9440773	1.3571867	.572
1.125786	.8997251	1.1044359	.9455405	1.3650136	.520
1.105159	.8853732	1.1201694	.9370618	1.3837982	.468
1.101659	.8780309	1.1282924	.9326542	1.4025828	.416
1.104051	.8879478	1.1173328	.9385960	1.3744059	.364
1.106435	.8981601	1.1061423	.9446246	1.3462290	.312
1.104729	.8982515	1.1060426	.9446781	1.3438809	.260
1.104928	.8991179	1.1050978	.9451854	1.3415329	.208
1.102760	.8971891	1.1072021	.9440553	1.3446636	.156
1.104399	.8968122	1.1076137	.9438341	1.3477944	.104
1.097164	.8879597	1.1173198	.9386031	1.3657963	.052
1.118487	.8906961	1.1143117	.9402274	1.3837982	0.000
1.097339	.8857493	1.1197547	.9372863	1.3728405	-.052
1.102084	.8912261	1.1137300	.9405412	1.3618828	-.104
1.101289	.8878481	1.1174426	.9385367	1.3712751	-.156
1.127207	.8951743	1.1094040	.9428714	1.3806674	-.208
1.107543	.8924055	1.1124361	.9412387	1.3650136	-.260
1.112682	.8996467	1.1045214	.9454946	1.3493598	-.312
1.113532	.8958428	1.1086730	.9432646	1.3618828	-.364
1.114381	.8920920	1.1127799	.9410535	1.3744059	-.416
1.122729	.8908729	1.1141177	.9403321	1.3884943	-.468
1.138709	.8926732	1.1121427	.9413969	1.4025828	-.520
1.130559	.8947311	1.1098889	.9426105	1.3861463	-.572
1.124317	.8975952	1.1067588	.9442935	1.3697097	-.624
1.141411	.8967391	1.1076936	.9437912	1.3931905	-.676
1.135608	.8870130	1.1183620	.9380397	1.4166712	-.728
1.161261	.8930376	1.1117433	.9416121	1.4291943	-.780
1.143025	.8821415	1.1237386	.9351277	1.4417173	-.832
1.164931	.8869504	1.1184310	.9380024	1.4534577	-.884
1.150574	.8779293	1.1284051	.9325928	1.4651981	-.936
1.237728	1.3176466	.7323638	1.1276189	.6997260	-.988
-.339784	2.2522523	.3309467	1.2956749	-.0657461	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00

(a) y/D = -0.40

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.932015	.8859081	1.1195796	.9373810	1.1655918	1.040
.912808	.8773330	1.1290671	.9322327	1.1639951	.988
.903270	.8733366	1.1335118	.9298110	1.1623984	.936
.878111	.8610883	1.1472248	.9222994	1.1623984	.884
.864560	.8544179	1.1547498	.9181514	1.1623984	.832
.852804	.8480069	1.1620196	.9141261	1.1639951	.780
.835233	.8386502	1.1726948	.9081830	1.1655918	.728
.824021	.8347191	1.1772026	.9056616	1.1608017	.676
.812807	.8307359	1.1817838	.9030920	1.1560116	.624
.806992	.8277590	1.1852165	.9011618	1.1560116	.572
.808931	.8287526	1.1840700	.9018070	1.1560116	.520
.812531	.8294497	1.1832660	.9022591	1.1592050	.468
.804500	.8242061	1.1893235	.8988471	1.1623984	.416
.810315	.8271798	1.1858853	.9007853	1.1623984	.364
.802561	.8232123	1.1904741	.8981975	1.1623984	.312
.800899	.8234917	1.1901505	.8983802	1.1592050	.260
.799238	.8237725	1.1898254	.8985638	1.1560116	.208
.799515	.8250557	1.1883404	.8994017	1.1528182	.156
.792037	.8223280	1.1914987	.8976186	1.1496248	.104
.744351	.7927967	1.2260871	.8778544	1.1623984	.052
.782053	.8081978	1.2079594	.8882676	1.1751720	0.000
.805375	.8207178	1.1933660	.8965627	1.1735753	-.052
.805513	.8213474	1.1926356	.8969759	1.1719786	-.104
.815463	.8355615	1.1762355	.9062031	1.1464314	-.156
.817665	.8461702	1.1641091	.9129659	1.1208842	-.208
.829259	.8521480	1.1573196	.9167305	1.1208842	-.260
.821530	.8481676	1.1618369	.9142275	1.1208842	-.312
.824159	.8441298	1.1664338	.9116733	1.1352545	-.364
.824853	.8391908	1.1720760	.9085285	1.1496248	-.416
.826927	.8327607	1.1794533	.9044001	1.1703819	-.468
.830932	.8274692	1.1855511	.9009735	1.1911391	-.520
.836734	.8303531	1.1822249	.9028443	1.1911391	-.572
.848335	.8360898	1.1756293	.9065424	1.1911391	-.624
.868910	.8433466	1.1673271	.9111762	1.1991226	-.676
.874021	.8430214	1.1676980	.9109696	1.2071061	-.728
.907278	.8606195	1.1477524	.9220092	1.2023160	-.780
.905756	.8616156	1.1466317	.9226256	1.1975259	-.832
.932517	.8730879	1.1337889	.9296598	1.2007193	-.884
.941897	.8763036	1.1302105	.9316103	1.2039127	-.936
.954459	.8780612	1.1282588	.9326724	1.2150896	-.988
.970880	.8815373	1.1244069	.9347650	1.2262665	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(b) y/D = 0

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.917625	.8880866	1.1171800	.9386786	1.1419722	1.040
.899827	.8781994	1.1281054	.9327558	1.1451800	.988
.893711	.8739865	1.1327880	.9302058	1.1483877	.936
.876588	.8673925	1.1401497	.9261826	1.1435761	.884
.871154	.8665245	1.1411217	.9256501	1.1387644	.832
.864455	.8680912	1.1393679	.9266107	1.1259332	.780
.853860	.8677133	1.1397907	.9263792	1.1131021	.728
.840955	.8472068	1.1629295	.9136211	1.1499916	.676
.828017	.8274969	1.1855191	.9009915	1.1868812	.624
.828424	.8373748	1.1741558	.9073665	1.1596150	.572
.821023	.8436026	1.1670350	.9113388	1.1323488	.520
.797893	.8328149	1.1793910	.9044351	1.1291410	.468
.761085	.8145366	1.2005545	.8924863	1.1259332	.416
.725611	.7864161	1.2336526	.8734717	1.1515955	.364
.680249	.7530928	1.2736660	.8499165	1.1772578	.312
.654593	.7521972	1.2747526	.8492678	1.1355566	.260
.630898	.7524019	1.2745042	.8494162	1.0938554	.208
.617605	.7460759	1.2821937	.8448115	1.0890437	.156
.590563	.7311770	1.3004104	.8338016	1.0842320	.104
.571699	.7151845	1.3201217	.8217223	1.0970632	.052
.570515	.7103020	1.3261702	.8179799	1.1098943	0.000
.591827	.7292669	1.3027563	.8323732	1.0922515	-.052
.610994	.7470396	1.2810205	.8455157	1.0746086	-.104
.620599	.7523273	1.2745947	.8493621	1.0762125	-.156
.653573	.7714804	1.2514850	.8630535	1.0778164	-.208
.704281	.8014464	1.2158825	.8837314	1.0762125	-.260
.739380	.8217864	1.1921266	.8972637	1.0746086	-.312
.776231	.8168042	1.1979137	.8939860	1.1419722	-.364
.803368	.8074845	1.2087947	.8877905	1.2093357	-.416
.836238	.8232923	1.1903814	.8982498	1.2109396	-.468
.841921	.8255388	1.1877817	.8997167	1.2125435	-.520
.848021	.8296221	1.1830674	.9023708	1.2093357	-.572
.852179	.8327587	1.1794556	.9043988	1.2061279	-.624
.868113	.8421893	1.1686480	.9104405	1.2013162	-.676
.864648	.8421956	1.1686408	.9104445	1.1965045	-.728
.892753	.8598172	1.1486556	.9215122	1.1852773	-.780
.885962	.8606264	1.1477446	.9220135	1.1740500	-.832
.914614	.8726454	1.1342820	.9293907	1.1788617	-.884
.916141	.8715967	1.1354514	.9287522	1.1836734	-.936
.926671	.8718783	1.1351373	.9289238	1.1965045	-.988
.948822	.8775447	1.1288321	.9323606	1.2093357	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(c) y/D = 0.21

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.869128	.9277057	1.0743199	.9615615	.9912062	1.040
.852141	.9215823	1.0808470	.9581119	.9847906	.988
.835152	.9153359	1.0875421	.9545607	.9783750	.936
.824603	.9050961	1.0985976	.9486675	.9879984	.884
.819894	.8981448	1.1061590	.9446156	.9976218	.832
.828919	.8793599	1.1268184	.9334555	1.0521541	.780
.835972	.8610608	1.1472557	.9222825	1.1066865	.728
.832234	.8511528	1.1584477	.9161061	1.1275371	.676
.822630	.8385102	1.1728551	.9080934	1.1483877	.624
.820400	.8362059	1.1754961	.9066170	1.1515955	.572
.810357	.8299166	1.1827279	.9025616	1.1548033	.520
.777553	.8146441	1.2004293	.8925575	1.1499916	.468
.742769	.7978850	1.2200768	.8813206	1.1451800	.416
.695771	.7722302	1.2505858	.8635819	1.1451800	.364
.640834	.7411161	1.2882417	.8411722	1.1451800	.312
.593134	.7180469	1.3165823	.8239043	1.1291410	.260
.547313	.6947053	1.3455811	.8058525	1.1131021	.208
.512487	.6683987	1.3786006	.7847924	1.1259332	.156
.493401	.6521287	1.3991723	.7713809	1.1387644	.104
.485452	.6468545	1.4058619	.7669692	1.1387644	.052
.487440	.6481775	1.4041829	.7680788	1.1387644	0.000
.503626	.6621236	1.3865222	.7796553	1.1275371	-.052
.530317	.6828505	1.3604204	.7964568	1.1163099	-.104
.567503	.7058792	1.3316610	.8145677	1.1179138	-.156
.610470	.7315889	1.2999048	.8341092	1.1195177	-.208
.670769	.7657732	1.2583434	.8590130	1.1227254	-.260
.717291	.7907546	1.2285049	.8764562	1.1259332	-.312
.758875	.8081889	1.2079698	.8882617	1.1403683	-.364
.800430	.8248177	1.1886158	.8992464	1.1548033	-.416
.825987	.8390482	1.1722392	.9084374	1.1515955	-.468
.839868	.8472502	1.1628801	.9136485	1.1483877	-.520
.842020	.8756674	1.1309178	.9312251	1.0778164	-.572
.844113	.9069497	1.0965890	.9497409	1.0072451	-.624
.836626	.9043595	1.0993966	.9482401	1.0040373	-.676
.834957	.9049037	1.0988063	.9485559	1.0008295	-.728
.829495	.9144817	1.0884605	.9540725	.9735634	-.780
.856973	.9428013	1.0583826	.9699326	.9462972	-.832
.855367	.9557880	1.0448479	.9769854	.9190310	-.884
.869245	.9781291	1.0219470	.9888044	.8917648	-.936
.882445	.9963389	1.0036412	.9981512	.8725181	-.988
.899506	1.0172057	.9830632	1.0085548	.8532713	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(d) y/D = 0.42

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.896185	.9300726	1.0718065	.9628864	1.0168685	1.040
.878661	.9209344	1.0815398	.9577451	1.0168685	.988
.859185	.9106706	1.0925667	.9518868	1.0168685	.936
.843871	.9039449	1.0998466	.9479994	1.0136607	.884
.834399	.9002835	1.1038277	.9458667	1.0104529	.832
.825198	.8981618	1.1061404	.9446256	1.0040373	.780
.814048	.8949371	1.1096636	.9427318	.9976218	.728
.808066	.8909267	1.1140586	.9403640	.9992256	.676
.800133	.8858323	1.1196632	.9373358	1.0008295	.624
.794013	.8810269	1.1249719	.9344584	1.0040373	.572
.791790	.8783910	1.1278928	.9328715	1.0072451	.520
.785626	.8834466	1.1222960	.9359099	.9879984	.468
.781410	.8897821	1.1153156	.9396856	.9687517	.416
.768250	.8645471	1.1433386	.9244344	1.0088490	.364
.743334	.8339993	1.1780295	.9051984	1.0489463	.312
.719051	.8165271	1.1982362	.8938030	1.0585697	.260
.694742	.7989825	1.2187831	.8820648	1.0681931	.208
.662424	.7761098	1.2459397	.8663067	1.0794203	.156
.647703	.7634772	1.2611093	.8573782	1.0906476	.104
.643637	.7605180	1.2646796	.8552632	1.0922515	.052
.645455	.7610327	1.2640582	.8556317	1.0938554	0.000
.658160	.7701821	1.2530431	.8621373	1.0890437	-.052
.683939	.7868611	1.2331240	.8737787	1.0842320	-.104
.714566	.8103014	1.2054984	.8896719	1.0681931	-.156
.743197	.8326503	1.1795804	.9043289	1.0521541	-.208
.760800	.8617159	1.1465189	.9226876	1.0056412	-.260
.778344	.8924787	1.1123559	.9412820	.9591283	-.312
.785248	.9024849	1.1014326	.9471503	.9462972	-.364
.794085	.9137652	1.0892314	.9536625	.9334660	-.416
.797154	.9108462	1.0923772	.9519878	.9430894	-.468
.802162	.9090764	1.0942884	.9509688	.9527127	-.520
.811130	.9211491	1.0813101	.9578667	.9382777	-.572
.827843	.9378327	1.0636041	.9671980	.9238427	-.624
.843275	.9344445	1.0671784	.9653215	.9479011	-.676
.850954	.9269990	1.0750713	.9611649	.9719595	-.728
.850893	.9378624	1.0635728	.9672143	.9495050	-.780
.879880	.9651848	1.0351564	.9820045	.9270504	-.832
.878283	.9544517	1.0462330	.9762660	.9462972	-.884
.892181	.9523372	1.0484283	.9751247	.9655439	-.936
.896456	.9346462	1.0669653	.9654335	1.0072451	-.988
.908472	.9219970	1.0804038	.9583465	1.0489463	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(e) y/D = 0.60

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.918750	.9329214	1.0687887	.9644750	1.0361152	1.040
.903058	.9242048	1.0780473	.9595931	1.0377191	.988
.891252	.9174352	1.0852878	.9557579	1.0393230	.936
.872066	.9089104	1.0944678	.9508732	1.0361152	.884
.860661	.9043483	1.0994088	.9482336	1.0329074	.832
.853553	.9041227	1.0996537	.9481026	1.0248879	.780
.842552	.9018128	1.1021634	.9467589	1.0168685	.728
.834632	.8968569	1.1075649	.9438604	1.0184724	.676
.826710	.8918884	1.1130032	.9409331	1.0200763	.624
.818786	.8869070	1.1184788	.9379765	1.0216802	.572
.814756	.8840279	1.1216540	.9362578	1.0232841	.520
.806557	.8775082	1.1288726	.9323385	1.0280957	.468
.802252	.8731223	1.1337505	.9296808	1.0329074	.416
.799039	.8747746	1.1319108	.9306841	1.0248879	.364
.793878	.8753765	1.1312413	.9310489	1.0168685	.312
.787898	.8713861	1.1356864	.9286239	1.0184724	.260
.781916	.8673895	1.1401531	.9261807	1.0200763	.208
.777882	.8644698	1.1434253	.9243868	1.0216802	.156
.775797	.8626333	1.1454876	.9232544	1.0232841	.104
.775522	.8611321	1.1471755	.9223266	1.0264918	.052
.783043	.8639485	1.1440104	.9240657	1.0296996	0.000
.778995	.8610424	1.1472765	.9222710	1.0313035	-.052
.780798	..8613686	1.1469094	.9224729	1.0329074	-.104
.787986	.8721221	1.1348655	.9290722	1.0168685	-.156
.797105	.8841545	1.1215142	.9363335	1.0008295	-.208
.795167	.8830787	1.1227025	.9356895	1.0008295	-.260
.800982	.8863020	1.1191454	.9376160	1.0008295	-.312
.804451	.8860916	1.1193773	.9374905	1.0056412	-.364
.811796	.8880060	1.1172688	.9386306	1.0104529	-.416
.817203	.8888446	1.1163462	.9391291	1.0152646	-.468
.824549	.8907220	1.1142833	.9402427	1.0200763	-.520
.832165	.8941236	1.1105538	.9422527	1.0216802	-.572
.849468	.9026634	1.1012387	.9472542	1.0232841	-.624
.864020	.9054088	1.0982585	.9488488	1.0345113	-.676
.870823	.9040737	1.0997069	.9480741	1.0457386	-.728
.868886	.9030675	1.1007996	.9474893	1.0457386	-.780
.894067	.9160599	1.0867642	.9549740	1.0457386	-.832
.893663	.9137530	1.0892446	.9536555	1.0505502	-.884
.910689	.9203109	1.0822067	.9573918	1.0553619	-.936
.921717	.9545883	1.0460914	.9763396	.9928101	-.988
.938492	.9950938	1.0048826	.9975202	.9302582	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(f) y/D = 0.80

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.929826	.9570016	1.0435913	.9776376	.9964996	1.040
.923249	.9605859	1.0398888	.9795569	.9820808	.988
.926387	.9693592	1.0308787	.9842117	.9676620	.936
.917498	.9468382	1.0541579	.9721395	1.0045100	.884
.904698	.9234260	1.0788780	.9591538	1.0413581	.832
.896783	.9186713	1.0839625	.9564610	1.0429602	.780
.883030	.9109004	1.0923187	.9520190	1.0445623	.728
.875247	.9068772	1.0966675	.9496989	1.0445623	.676
.865517	.9018222	1.1021532	.9467643	1.0445623	.624
.857596	.8969987	1.1074101	.9439436	1.0461643	.572
.857461	.8962419	1.1082368	.9434992	1.0477664	.520
.849403	.8906601	1.1143513	.9402060	1.0509706	.468
.843291	.8860999	1.1193681	.9374954	1.0541748	.416
.838264	.8875108	1.1178138	.9383361	1.0445623	.364
.833238	.8889456	1.1162352	.9391891	1.0349497	.312
.829344	.8868660	1.1185240	.9379521	1.0349497	.260
.827397	.8858243	1.1196719	.9373310	1.0349497	.208
.825313	.8840246	1.1216577	.9362558	1.0365518	.156
.823230	.8822266	1.1236445	.9351787	1.0381539	.104
.822958	.8807227	1.1253086	.9342756	1.0413581	.052
.832423	.8844132	1.1212287	.9364882	1.0445623	0.000
.823387	.8795998	1.1265525	.9336000	1.0445623	-.052
.825323	.8806336	1.1254072	.9342221	1.0445623	-.104
.828075	.8861877	1.1192714	.9375478	1.0349497	-.156
.832762	.8928476	1.1119515	.9414999	1.0253372	-.208
.834833	.8946565	1.1099706	.9425666	1.0237351	-.260
.838839	.8975033	1.1068591	.9442396	1.0221330	-.312
.842304	.8972480	1.1071378	.9440899	1.0269393	-.364
.849640	.8990455	1.1051767	.9451430	1.0317455	-.416
.854906	.8990391	1.1051836	.9451393	1.0381539	-.468
.862106	.9000437	1.1040889	.9457267	1.0445623	-.520
.869982	.9048399	1.0988755	.9485189	1.0429602	-.572
.889465	.9156191	1.0872378	.9547224	1.0413581	-.624
.904940	.9235495	1.0787462	.9592235	1.0413581	-.676
.912676	.9274887	1.0745506	.9614397	1.0413581	-.728
.905745	.9282543	1.0737368	.9618690	1.0317455	-.780
.923950	.9419348	1.0592916	.9694571	1.0221330	-.832
.912617	.9376110	1.0638376	.9670755	1.0189288	-.884
.916751	.9412133	1.0600489	.9690607	1.0157246	-.936
.922284	.9425636	1.0586319	.9698022	1.0189288	-.988
.927816	.9439036	1.0572275	.9705365	1.0221330	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(g) y/D = 1.00

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.947472	.9524069	1.0380125	.9805281	1.0040373	1.040
.939042	.9543120	1.0463779	.9761907	1.0120568	.988
.932550	.9472621	1.0537152	.9723705	1.0200763	.936
.926591	.9434893	1.0576615	.9703096	1.0216802	.884
.924516	.9416931	1.0595452	.9693244	1.0232841	.832
.920498	.9389091	1.0624709	.9677921	1.0248879	.780
.916480	.9361254	1.0654038	.9662536	1.0264918	.728
.910116	.9299683	1.0719172	.9628281	1.0329074	.676
.903751	.9238459	1.0784300	.9593908	1.0393230	.624
.897653	.9193064	1.0832821	.9568218	1.0425308	.572
.893498	.9157682	1.0870775	.9548075	1.0457386	.520
.886993	.9089503	1.0944248	.9508961	1.0537580	.468
.884374	.9041732	1.0995988	.9481320	1.0617775	.416
.881838	.9097731	1.0935357	.9513703	1.0457386	.364
.879299	.9155107	1.0873542	.9546605	1.0296996	.312
.875008	.9111477	1.0920519	.9521611	1.0345113	.260
.872660	.9078154	1.0956520	.9502412	1.0393230	.208
.870930	.9183235	1.0843353	.9562633	1.0136607	.156
.871137	.9302840	1.0715824	.9630045	.9879984	.104
.869256	.9188957	1.0837220	.9565885	1.0104529	.052
.877086	.9129371	1.0901231	.9531881	1.0329074	0.000
.866283	.9037957	1.1000086	.9479127	1.0409269	-.052
.869478	.9019926	1.1019679	.9468636	1.0489463	-.104
.872089	.9068190	1.0967305	.9496653	1.0409269	-.156
.874698	.9116935	1.0914633	.9524746	1.0329074	-.208
.881868	.9444667	1.0566378	.9708447	.9703556	-.260
.890919	.9814619	1.0185724	.9905341	.9078037	-.312
.895920	.9790370	1.0210267	.9892764	.9174271	-.364
.898988	.9756088	1.0245062	.9874907	.9270504	-.416
.898731	.9503177	1.0505292	.9740312	.9767711	-.468
.898449	.9268710	1.0752075	.9610931	1.0264918	-.520
.906318	.9316495	1.0701351	.9637666	1.0248879	-.572
.923854	.9413560	1.0598991	.9691392	1.0232841	-.624
.912119	.9346263	1.0669862	.9654225	1.0248879	-.676
.937119	.9466074	1.0543990	.9720137	1.0264918	-.728
.923854	.9413560	1.0598991	.9691392	1.0232841	-.780
.945384	.9537579	1.0469529	.9758919	1.0200763	-.832
.932121	.9485365	1.0523853	.9730640	1.0168685	-.884
.936253	.9521398	1.0486335	.9750179	1.0136607	-.936
.939852	.9524622	1.0482985	.9751922	1.0168685	-.988
.945384	.9537579	1.0469529	.9758919	1.0200763	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(h) y/D = 1.20

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.965299	.9735218	1.0266300	.9863991	.9997037	1.040
.960622	.9665248	1.0337814	.9827145	1.0093163	.988
.955943	.9596093	1.0408964	.9790350	1.0189288	.936
.952061	.9576587	1.0429117	.9779902	1.0189288	.884
.950119	.9566818	1.0439223	.9774659	1.0189288	.832
.946103	.9539083	1.0467968	.9759730	1.0205309	.780
.942087	.9511352	1.0496783	.9744742	1.0221330	.728
.940911	.9777384	1.0223433	.9886011	.9660599	.676
.941647	1.0078057	.9922804	1.0039082	.9099867	.624
.936633	.9730954	1.0270645	.9861756	.9708661	.572
.929636	.9404172	1.0608851	.9686229	1.0317455	.520
.924815	.9329192	1.0687910	.9644738	1.0429602	.468
.921935	.9264973	1.0756051	.9608832	1.0541748	.416
.921198	.9325266	1.0692064	.9642553	1.0397560	.364
.920460	.9386843	1.0627075	.9676681	1.0253372	.312
.918251	.9360954	1.0654354	.9662370	1.0285414	.260
.916041	.9335154	1.0681604	.9648053	1.0317455	.208
.913697	.9301561	1.0717180	.9629331	1.0365518	.156
.913294	.9278029	1.0742166	.9616159	1.0413581	.104
.913294	.9278029	1.0742166	.9616159	1.0413581	.052
.915237	.9287891	1.0731688	.9621685	1.0413581	0.000
.910742	.9265055	1.0755964	.9608878	1.0413581	-.052
.912676	.9274887	1.0745506	.9614397	1.0413581	-.104
.917213	.9333883	1.0682948	.9647347	1.0333476	-.156
.917882	.9373689	1.0640927	.9669416	1.0253372	-.208
.918150	.9389737	1.0624029	.9678277	1.0221330	-.260
.922284	.9425636	1.0586319	.9698022	1.0189288	-.312
.924083	.9427420	1.0584449	.9699000	1.0205309	-.364
.925883	.9429197	1.0582585	.9699975	1.0221330	-.416
.927416	.9414888	1.0597596	.9692122	1.0269393	-.468
.928948	.9400691	1.0612509	.9684313	1.0317455	-.520
.934149	.9501023	1.0507534	.9739144	1.0157246	-.572
.956736	.9691939	1.0310478	.9841245	.9997037	-.624
.942146	.9556692	1.0449709	.9769216	1.0125205	-.676
.966205	.9617269	1.0387128	.9801657	1.0253372	-.728
.947146	.9536852	1.0470283	.9758527	1.0221330	-.780
.951277	.9572645	1.0433193	.9777788	1.0189288	-.832
.951809	.9605575	1.0399181	.9795417	1.0125205	-.884
.952340	.9638806	1.0364964	.9813121	1.0061121	-.936
.953874	.9623607	1.0380601	.9805034	1.0109184	-.988
.955408	.9608527	1.0396137	.9796993	1.0157246	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(i) y/D = 1.60

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.837394	.9537451	1.0469661	.9758850	.9035784	1.040
.990202	1.0080491	.9920407	1.0040294	.9564473	.988
.989732	.9810598	1.0189790	.9903258	1.0093163	.936
.986733	.9734113	1.0267425	.9863412	1.0221330	.884
.985672	.9668452	1.0334529	.9828841	1.0349497	.832
.985539	.9660327	1.0342862	.9824539	1.0365518	.780
.983466	.9642709	1.0360952	.9815194	1.0381539	.728
.981259	.9617055	1.0387348	.9801543	1.0413581	.676
.979052	.9591490	1.0413717	.9787887	1.0445623	.624
.983160	.9848573	1.0151456	.9922874	.9948975	.572
.985303	1.0115000	.9886476	1.0057422	.9452327	.520
.978486	.9778012	1.0222797	.9886337	1.0045100	.468
.971630	.9468329	1.0541635	.9721366	1.0637873	.416
.972829	.9539038	1.0468015	.9759706	1.0493685	.364
.972085	.9601582	1.0403300	.9793284	1.0349497	.312
.972085	.9601582	1.0403300	.9793284	1.0349497	.260
.972085	.9601582	1.0403300	.9793284	1.0349497	.208
.969611	.9559808	1.0446481	.9770892	1.0413581	.156
.969079	.9527912	1.0479567	.9753700	1.0477664	.104
.971020	.9537451	1.0469661	.9758850	1.0477664	.052
.971020	.9537451	1.0469661	.9758850	1.0477664	0.000
.967160	.9525758	1.0481804	.9752536	1.0461643	-.052
.971154	.9552725	1.0453820	.9767081	1.0445623	-.104
.973218	.9570210	1.0435713	.9776481	1.0429602	-.156
.973351	.9578224	1.0427424	.9780780	1.0413581	-.208
.973484	.9586255	1.0419124	.9785084	1.0397560	-.260
.973617	.9594304	1.0410811	.9789393	1.0381539	-.312
.975414	.9595755	1.0409313	.9790169	1.0397560	-.364
.975281	.9587717	1.0417613	.9785867	1.0413581	-.416
.976812	.9573175	1.0432645	.9778072	1.0461643	-.468
.978344	.9558744	1.0447583	.9770319	1.0509706	-.520
.980407	.9576121	1.0429599	.9779652	1.0493685	-.572
1.001772	.9687297	1.0315227	.9838797	1.0477664	-.624
.982205	.9577587	1.0428083	.9780439	1.0509706	-.676
1.005102	.9673843	1.0329004	.9831692	1.0541748	-.728
.986730	.9636418	1.0367420	.9811851	1.0429602	-.780
.997308	.9740443	1.0260979	.9866727	1.0317455	-.832
.999746	1.0533731	.9484046	1.0258387	.8843533	-.884
.971183	1.1373091	.8728458	1.0625448	.7369611	-.936
.847268	1.0740171	.9291929	1.0352950	.7209402	-.988
.842784	1.0832750	.9207113	1.0394425	.7049193	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(j) y/D = 2.00

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.872303	1.0692072	.9336322	1.0331176	.7489354	1.040
.868950	1.0717404	.9312914	1.0342663	.7425342	.988
.865597	1.0743114	.9289220	1.0354277	.7361331	.936
.861856	1.0731541	.9299877	1.0349055	.7345328	.884
.860050	1.0731989	.9299465	1.0349257	.7329325	.832
.860697	1.0795114	.9241493	1.0377633	.7249310	.780
.861344	1.0859265	.9182973	1.0406198	.7169296	.728
.857473	1.0834839	.9205209	1.0395354	.7169296	.676
.857473	1.0834839	.9205209	1.0395354	.7169296	.624
.855667	1.0835522	.9204586	1.0395658	.7153293	.572
.855797	1.0848483	.9192782	1.0401416	.7137290	.520
.853991	1.0849200	.9192129	1.0401734	.7121287	.468
.854120	1.0862232	.9180276	1.0407513	.7105284	.416
.852831	1.0915668	.9131850	1.0431090	.7025270	.364
.853476	1.0982519	.9071650	1.0460323	.6945255	.312
.853992	1.1036815	.9023072	1.0483855	.6881244	.260
.854507	1.1091856	.8974116	1.0507516	.6817232	.208
.853089	1.0942274	.9107839	1.0442759	.6993264	.156
.851667	1.0798094	.9238766	1.0378966	.7169296	.104
.853218	1.0955644	.9095800	1.0448606	.6977261	.052
.856699	1.1132237	.8938382	1.0524753	.6785226	0.000
.856212	1.1102917	.8964312	1.0512247	.6817232	-.052
.857881	1.1087733	.8977772	1.0505750	.6849238	-.104
.857495	1.1046588	.9014358	1.0488070	.6897247	-.156
.853255	1.0981097	.9072927	1.0459705	.6945255	-.208
.856979	1.0992375	.9062811	1.0464609	.6961258	-.260
.858776	1.0991270	.9063802	1.0464129	.6977261	-.312
.856850	1.0978936	.9074866	1.0458764	.6977261	-.364
.858776	1.0991270	.9063802	1.0464129	.6977261	-.416
.859670	1.0897466	.9148314	1.0423080	.7105284	-.468
.858636	1.0794098	.9242424	1.0377178	.7233307	-.520
.860821	1.0831817	.9207964	1.0394009	.7201302	-.572
.861080	1.0857599	.9184489	1.0405460	.7169296	-.624
.860950	1.0844687	.9196237	1.0399731	.7185299	-.676
.864674	1.0856033	.9185913	1.0404766	.7201302	-.728
.862618	1.0831091	.9208626	1.0393686	.7217304	-.780
.862489	1.0818292	.9220304	1.0387985	.7233307	-.832
.868527	1.0880194	.9163967	1.0415459	.7201302	-.884
.870712	1.0918161	.9129597	1.0432185	.7169296	-.936
.871605	1.0827509	.9211892	1.0392092	.7297319	-.988
.874423	1.0751101	.9281872	1.0357877	.7425342	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 5.00 - Continued

(k) y/D = 2.40

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.909696	1.0480149	.9534588	1.0233364	.8129469	1.040
.906084	1.0479972	.9534755	1.0233281	.8097464	.988
.902472	1.0479795	.9534923	1.0233198	.8065458	.936
.899121	1.0502074	.9513873	1.0243627	.8001446	.884
.897705	1.0536031	.9481883	1.0259456	.7937435	.832
.896549	1.0593513	.9427986	1.0286070	.7841417	.780
.897327	1.0663602	.9362703	1.0318215	.7745400	.728
.893456	1.0640573	.9384100	1.0307690	.7745400	.676
.891520	1.0629040	.9394836	1.0302405	.7745400	.624
.891520	1.0629040	.9394836	1.0302405	.7745400	.572
.891520	1.0629040	.9394836	1.0302405	.7745400	.520
.889455	1.0605768	.9416537	1.0291715	.7761403	.468
.889325	1.0594078	.9427458	1.0286330	.7777406	.416
.890103	1.0664752	.9361636	1.0318739	.7681388	.364
.888946	1.0725056	.9305855	1.0346125	.7585371	.312
.887658	1.0774261	.9260601	1.0368289	.7505357	.260
.888305	1.0836103	.9204056	1.0395916	.7425342	.208
.886881	1.0701309	.9327779	1.0335370	.7601374	.156
.885453	1.0570991	.9449065	1.0275670	.7777406	.104
.888427	1.0676972	.9350304	1.0324309	.7649383	.052
.889464	1.0773736	.9261082	1.0368053	.7521359	0.000
.889190	1.0783557	.9252078	1.0372458	.7505357	-.052
.891246	1.0807546	.9230122	1.0383190	.7489354	-.104
.890858	1.0770725	.9263846	1.0366701	.7537362	-.156
.890469	1.0734244	.9297387	1.0350276	.7585371	-.208
.892267	1.0733755	.9297837	1.0350055	.7601374	-.260
.894064	1.0733268	.9298286	1.0349835	.7617377	-.312
.893935	1.0721235	.9309379	1.0344397	.7633380	-.364
.893805	1.0709238	.9320453	1.0338965	.7649383	-.416
.894824	1.0637733	.9386743	1.0306389	.7761403	-.468
.895842	1.0567794	.9452062	1.0274190	.7873423	-.520
.897639	1.0567655	.9452192	1.0274126	.7889426	-.572
.897510	1.0556190	.9462945	1.0268815	.7905429	-.624
.899177	1.0544666	.9473766	1.0263469	.7937435	-.676
.902771	1.0544485	.9473936	1.0263385	.7969440	-.728
.902771	1.0544485	.9473936	1.0263385	.7969440	-.780
.902771	1.0544485	.9473936	1.0263385	.7969440	-.832
.906886	1.0589772	.9431484	1.0284345	.7937435	-.884
.907146	1.0612707	.9410061	1.0294906	.7905429	-.936
.910091	1.0555398	.9463688	1.0268448	.8017449	-.988
.911108	1.0488276	.9526904	1.0237172	.8129469	-1.040

TABLE II.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120^{o} CONE; x/D = 5.00 - Concluded

(l) y/D = 3.00

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.976783	1.0228408	.9775791	1.0113093	.9163951	1.040
.972385	1.0169858	.9832779	1.0084469	.9228035	.988
.969923	1.0121891	.9879715	1.0060831	.9292118	.936
.966443	1.0129946	.9871818	1.0064812	.9244056	.884
.966836	1.0158451	.9843920	1.0078863	.9195993	.832
.967230	1.0187174	.9815890	1.0092961	.9147930	.780
.965686	1.0205888	.9797671	1.0102113	.9099867	.728
.963880	1.0205328	.9798216	1.0101839	.9083847	.676
.962074	1.0204766	.9798762	1.0101565	.9067826	.624
.963776	1.0333142	.9674690	1.0163679	.8859554	.572
.965472	1.0465984	.9547996	1.0226715	.8651282	.520
.961447	1.0292769	.9713536	1.0144272	.8907617	.468
.957413	1.0126484	.9875211	1.0063102	.9163951	.416
.960556	1.0362822	.9646234	1.0177871	.8779450	.364
.963683	1.0614719	.9408184	1.0295831	.8394948	.312
.965371	1.0758300	.9275255	1.0361117	.8186677	.260
.967054	1.0907311	.9139405	1.0427415	.7978405	.208
.962397	1.0658607	.9367340	1.0315935	.8314844	.156
.961600	1.0444974	.9567919	1.0216828	.8651282	.104
.966148	1.0826378	.9212924	1.0391588	.8090551	.052
.970665	1.1248450	.8836408	1.0573787	.7529820	0.000
.960750	1.0732520	.9298975	1.0349497	.8186677	-.052
.959265	1.0318270	.9688981	1.0156543	.8843533	-.104
.959396	1.0328332	.9679309	1.0161373	.8827512	-.156
.959527	1.0338422	.9669622	1.0166208	.8811491	-.208
.959004	1.0298223	.9708278	1.0146901	.8875575	-.260
.960409	1.0268758	.9736714	1.0132675	.8939659	-.312
.960016	1.0239171	.9765353	1.0118328	.8987721	-.364
.959623	1.0209812	.9793855	1.0104029	.9035784	-.416
.960896	1.0171593	.9831085	1.0085321	.9115888	-.468
.962168	1.0133898	.9867945	1.0066764	.9195993	-.520
.962168	1.0133898	.9867945	1.0066764	.9195993	-.572
.964097	1.0144049	.9858005	1.0071771	.9195993	-.624
.965500	1.0116242	.9885257	1.0058036	.9260076	-.676
.968832	1.0098798	.9902392	1.0049391	.9324160	-.728
.968832	1.0098798	.9902392	1.0049391	.9324160	-.780
.968832	1.0098798	.9902392	1.0049391	.9324160	-.832
.970892	1.0118224	.9883312	1.0059017	.9308139	-.884
.972951	1.0137680	.9864241	1.0068630	.9292118	-.936
.972295	1.0090857	.9910202	1.0045448	.9372223	-.988
.975495	1.0064530	.9936139	1.0032342	.9452327	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39

(a) y/D = -0.40

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.834794	.9775510	1.0225335	.9885035	.8574347	1.040
.816941	.9643470	1.0360171	.9815598	.8622338	.988
.799083	.9511052	1.0497095	.9744580	.8670328	.936
.785900	.9458482	1.0551926	.9715995	.8622338	.884
.774656	.9416821	1.0595568	.9693183	.8574347	.832
.764952	.9357653	1.0657837	.9660541	.8574347	.780
.753305	.9286142	1.0733546	.9620706	.8574347	.728
.743196	.9197915	1.0827626	.9570972	.8622338	.676
.731140	.9097728	1.0935360	.9513701	.8670328	.624
.734890	.9112626	1.0919280	.9522271	.8686325	.572
.748350	.9137241	1.0839060	.9564910	.8702322	.520
.747678	.9141204	1.0888493	.9538658	.8782307	.468
.743121	.9072084	1.0963089	.9498905	.8862291	.416
.743928	.9126569	1.0904250	.9530275	.8766310	.364
.742793	.9169939	1.0857614	.9555065	.8670328	.312
.742793	.9169939	1.0857614	.9555065	.8670328	.260
.740851	.9157944	1.0870494	.9548225	.8670328	.208
.728929	.9067244	1.0968329	.9496106	.8702322	.156
.707287	.8915255	1.1134013	.9407184	.8734316	.104
.692281	.8852662	1.1202874	.9369979	.8670328	.052
.704483	.8963474	1.1081215	.9435612	.8606341	0.000
.724883	.9134872	1.0895307	.9535033	.8526356	-.052
.737152	.9255370	1.0766275	.9603433	.8446371	-.104
.742816	.9282075	1.0737866	.9618427	.8462368	-.156
.742682	.9272478	1.0748067	.9613046	.8478365	-.208
.747945	.9270354	1.0750326	.9611854	.8542353	-.260
.751274	.9256362	1.0765218	.9603991	.8606341	-.312
.754738	.9251916	1.0769954	.9601489	.8654331	-.364
.756269	.9235721	1.0787221	.9592363	.8702322	-.416
.747999	.9151507	1.0877412	.9544549	.8766310	-.468
.737793	.9055869	1.0980655	.9489520	.8830297	-.520
.747462	.9115010	1.0916708	.9523641	.8830297	-.572
.757128	.9173761	1.0853513	.9557242	.8830297	-.624
.768458	.9225447	1.0798188	.9586562	.8862291	-.676
.779787	.9276470	1.0743823	.9615285	.8894285	-.728
.789716	.9352182	1.0663611	.9657509	.8862291	-.780
.799644	.9427815	1.0584035	.9699217	.8830297	-.832
.813432	.9526023	1.0481529	.9752679	.8798304	-.884
.827217	.9623914	1.0380285	.9805198	.8766310	-.936
.834676	.9649614	1.0353859	.9818860	.8798304	-.988
.844066	.9686144	1.0316407	.9838189	.8830297	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(b) y/D = 0

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.834744	.9395483	1.0617985	.9681445	.9281452	1.040
.821559	.9345183	1.0671004	.9653625	.9233444	.988
.808372	.9294074	1.0725124	.9625145	.9185437	.936
.798799	.9246937	1.0775260	.9598686	.9169434	.884
.791167	.9210696	1.0813951	.9578217	.9153432	.832
.783400	.9165373	1.0862516	.9552462	.9153432	.780
.775632	.9119818	1.0911524	.9526402	.9153432	.728
.767458	.9047943	1.0989249	.9484924	.9201439	.676
.759282	.8976233	1.1067281	.9443100	.9249447	.624
.753318	.8933183	1.1114358	.9417777	.9265449	.572
.747352	.8890069	1.1161678	.9392255	.9281452	.520
.734466	.8745499	1.1321608	.9305478	.9425474	.468
.719622	.8591284	1.1494316	.9210849	.9569497	.416
.706276	.8525516	1.1568624	.9169835	.9537492	.364
.692928	.8458770	1.1644429	.9127804	.9505487	.312
.681523	.8403030	1.1708035	.9092387	.9473482	.260
.664274	.8310056	1.1814733	.9032664	.9441477	.208
.642702	.8167096	1.1980238	.8939235	.9457479	.156
.625016	.8047130	1.2120443	.8859318	.9473482	.104
.617214	.7996746	1.2179679	.8825335	.9473482	.052
.623065	.8034565	1.2135196	.8850866	.9473482	0.000
.631489	.8102394	1.2055708	.8896306	.9441477	-.052
.645382	.8204953	1.1936242	.8964167	.9409472	-.104
.658292	.8350767	1.1767920	.9058916	.9265449	-.156
.677012	.8535268	1.1557581	.9175942	.9121427	-.208
.688523	.8599980	1.1484521	.9216242	.9137429	-.260
.701971	.8675970	1.1399208	.9263079	.9153432	-.312
.713613	.8747615	1.1319253	.9306761	.9153432	-.364
.731070	.8853964	1.1201438	.9370756	.9153432	-.416
.742433	.8906954	1.1143125	.9402270	.9185437	-.468
.753796	.8959257	1.1085824	.9433133	.9217442	-.520
.763488	.9016673	1.1023216	.9466741	.9217442	-.572
.786744	.9152966	1.0875843	.9545382	.9217442	-.624
.782330	.9095728	1.0937521	.9512549	.9281452	-.676
.791481	.9117384	1.0914149	.9525004	.9345462	-.728
.799500	.9179188	1.0847692	.9560331	.9313457	-.780
.809455	.9252068	1.0769792	.9601575	.9281452	-.832
.815668	.9311619	1.0706517	.9634946	.9233444	-.884
.825752	.9393453	1.0620120	.9680326	.9185437	-.936
.831294	.9408547	1.0604255	.9688636	.9217442	-.988
.842645	.9456160	1.0554353	.9714728	.9249447	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(c) y/D = 0.21

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.846995	.9383628	1.0630459	.9674907	.9441477	1.040
.831600	.9305851	1.0712631	.9631727	.9425474	.988
.818145	.9238103	1.0784680	.9593707	.9409472	.936
.808436	.9183129	1.0843467	.9562572	.9409472	.884
.800669	.9138905	1.0890966	.9537342	.9409472	.832
.790958	.9083315	1.0950937	.9505392	.9409472	.780
.781245	.9027374	1.1011582	.9472973	.9409472	.728
.769723	.8968188	1.1076065	.9438380	.9393469	.676
.756256	.8896970	1.1154092	.9396351	.9377467	.624
.742651	.8816575	1.1242740	.9348372	.9377467	.572
.729041	.8735418	1.1332832	.9299357	.9377467	.520
.707237	.8581854	1.1504947	.9204993	.9425474	.468
.683470	.8415024	1.1694326	.9100032	.9473482	.416
.664135	.8302156	1.1823832	.9027553	.9457479	.364
.644791	.8187283	1.1956763	.8952547	.9441477	.312
.629615	.8111010	1.2045638	.8902046	.9393469	.260
.616385	.8045926	1.2121856	.8858509	.9345462	.208
.603977	.7930654	1.2257691	.8780381	.9425474	.156
.593463	.7841345	1.2363657	.8718947	.9505487	.104
.589604	.7802675	1.2409731	.8692100	.9505487	.052
.587651	.7789741	1.2425168	.8683087	.9505487	0.000
.596310	.7866811	1.2333377	.8736546	.9457479	-.052
.598681	.7902520	1.2291005	.8761114	.9409472	-.104
.607173	.7992422	1.2184772	.8822407	.9329459	-.156
.629274	.8171596	1.1974885	.8942273	.9249447	-.208
.642467	.8235569	1.1900750	.8984228	.9297454	-.260
.661487	.8335094	1.1785925	.9048828	.9345462	-.312
.684384	.8456435	1.1647088	.9126326	.9393469	-.364
.713095	.8610021	1.1473218	.9222461	.9441477	-.416
.732092	.8701855	1.1370267	.9278914	.9489484	-.468
.753023	.8803136	1.1257617	.9340296	.9537492	-.520
.768809	.8909890	1.1139901	.9404009	.9505487	-.572
.790403	.9049403	1.0987666	.9485771	.9473482	-.624
.788195	.9021528	1.1017937	.9469569	.9505487	-.676
.805368	.9103965	1.0928625	.9517291	.9537492	-.728
.803969	.9126730	1.0904076	.9530367	.9473482	-.780
.820006	.9248603	1.0773484	.9599624	.9409472	-.832
.822077	.9268160	1.0752660	.9610622	.9393469	-.884
.831895	.9331293	1.0685687	.9645907	.9377467	-.936
.841177	.9359281	1.0656119	.9661444	.9425474	-.988
.852396	.9397582	1.0615778	.9682601	.9473482	-1.040

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TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(d) y/D = 0.42

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.862354	.9344125	1.0672121	.9653038	.9694131	1.040
.847226	.9284812	1.0734958	.9619961	.9646140	.988
.834038	.9235266	1.0787706	.9592106	.9598149	.936
.820445	.9159704	1.0868603	.9549229	.9598149	.884
.808793	.9094425	1.0938928	.9511798	.9598149	.832
.798811	.9023104	1.1016223	.9470487	.9630143	.780
.788826	.8951678	1.1094111	.9428676	.9662137	.728
.782997	.8918540	1.1130410	.9409127	.9662137	.676
.771336	.8851880	1.1203737	.9369512	.9662137	.624
.759400	.8768621	1.1295900	.9319481	.9694131	.572
.745516	.8673790	1.1401648	.9261743	.9726125	.520
.718280	.8513874	1.1581817	.9162533	.9726125	.468
.694920	.8374289	1.1740938	.9074012	.9726125	.416
.669737	.8227920	1.1909610	.8979225	.9710128	.364
.644537	.8078296	1.2083905	.8880214	.9694131	.312
.623782	.7980159	1.2199225	.8814094	.9614146	.260
.608875	.7917229	1.2273581	.8771196	.9534162	.208
.592406	.7770404	1.2448269	.8669581	.9630143	.156
.583735	.7675178	1.2562444	.8602516	.9726125	.104
.579968	.7656671	1.2584711	.8589376	.9710128	.052
.578156	.7651005	1.2591534	.8585346	.9694131	0.000
.586089	.7722454	1.2505676	.8635926	.9646140	-.052
.594303	.7795800	1.2417934	.8687311	.9598149	-.104
.610435	.7927365	1.2261583	.8778132	.9534162	-.156
.628495	.8070904	1.2092564	.8875266	.9470174	-.208
.649726	.8199174	1.1942950	.8960370	.9486171	-.260
.672886	.8337002	1.1783732	.9050057	.9502168	-.312
.699775	.8487668	1.1611560	.9146052	.9534162	-.364
.728588	.8646146	1.1432629	.9244759	.9566156	-.416
.745895	.8740931	1.1326693	.9302705	.9582153	-.468
.763197	.8834358	1.1223080	.9359034	.9598149	-.520
.774955	.8909576	1.1140246	.9403823	.9582153	-.572
.794455	.9028512	1.1010345	.9473635	.9566156	-.624
.793915	.8995409	1.1046367	.9454328	.9630143	-.676
.818543	.9103676	1.0928938	.9517125	.9694131	-.728
.814672	.9082122	1.0952228	.9504703	.9694131	-.780
.839833	.9221304	1.0802614	.9584219	.9694131	-.832
.836097	.9208370	1.0816438	.9576899	.9678134	-.884
.843971	.9259285	1.0762105	.9605635	.9662137	-.936
.855312	.9305895	1.0712584	.9631751	.9694131	-.988
.864717	.9341519	1.0674875	.9651591	.9726125	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(e) y/D = 0.60

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.882101	.9358306	1.0657148	.9660903	.9886094	1.040
.866840	.9292045	1.0727277	.9624010	.9854100	.988
.851576	.9224861	1.0798814	.9586230	.9822106	.936
.840060	.9169743	1.0857824	.9554953	.9806109	.884
.828542	.9114102	1.0917688	.9523119	.9790112	.832
.820773	.9071270	1.0963970	.9498434	.9790112	.780
.811060	.9017437	1.1022385	.9467186	.9790112	.728
.805232	.8984978	1.1057739	.9448224	.9790112	.676
.797460	.8941512	1.1105236	.9422689	.9790112	.624
.787472	.8870859	1.1182817	.9380831	.9822106	.572
.779426	.8811082	1.1248818	.9345073	.9854100	.520
.761382	.8680357	1.1394299	.9265767	.9918088	.468
.747218	.8571634	1.1516477	.9198637	.9982075	.416
.728583	.8505060	1.1591814	.9156998	.9886094	.364
.711891	.8448180	1.1656492	.9121098	.9790112	.312
.694506	.8351213	1.1767407	.9059203	.9774116	.260
.679062	.8264605	1.1867163	.9003172	.9758119	.208
.663055	.8146610	1.2004096	.8925687	.9806109	.156
.654838	.8076233	1.2086322	.8878833	.9854100	.104
.652888	.8064199	1.2100423	.8870774	.9854100	.052
.654838	.8076233	1.2086322	.8878833	.9854100	0.000
.657622	.8106553	1.2050847	.8899078	.9822106	-.052
.665663	.8169282	1.1977694	.8940679	.9790112	-.104
.682291	.8325273	1.1797218	.9042495	.9662137	-.156
.698900	.8482357	1.1617595	.9142704	.9534162	-.208
.715902	.8665251	1.1411211	.9256504	.9358196	-.260
.734819	.8862709	1.1191796	.9375974	.9182230	-.312
.750199	.8840215	1.1216611	.9362539	.9422183	-.364
.769449	.8841045	1.1215694	.9363036	.9662137	-.416
.779665	.8929159	1.1118767	.9415402	.9598149	-.468
.791810	.9028586	1.1010265	.9473678	.9534162	-.520
.803093	.9185625	1.0840791	.9563992	.9342199	-.572
.822092	.9390626	1.0623093	.9678768	.9150236	-.624
.819492	.9335053	1.0681710	.9647998	.9230220	-.676
.843943	.9432510	1.0579113	.9701790	.9310205	-.728
.836348	.9398050	1.0615286	.9682859	.9294208	-.780
.861594	.9547059	1.0459694	.9764030	.9278211	-.832
.858130	.9552584	1.0453966	.9767005	.9230220	-.884
.868184	.9633460	1.0370462	.9810278	.9182230	-.936
.876983	.9509757	1.0498443	.9743878	.9518165	-.988
.885776	.9392991	1.0620606	.9680071	.9854100	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(f) y/D = 0.80

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.907938	.9418473	1.0593833	.9694091	1.0046063	1.040
.896293	.9357879	1.0657598	.9660667	1.0046063	.988
.884646	.9296882	1.0722144	.9626715	1.0046063	.936
.874940	.9245736	1.0776541	.9598009	1.0046063	.884
.865232	.9194298	1.0831499	.9568919	1.0046063	.832
.859406	.9163294	1.0864748	.9551277	1.0046063	.780
.849696	.9111380	1.0920624	.9521555	1.0046063	.728
.841657	.9053772	1.0982928	.9488305	1.0078057	.676
.835559	.9006631	1.1034144	.9460883	1.0110051	.624
.829596	.8967340	1.1076992	.9437882	1.0126048	.572
.825574	.8938522	1.1108510	.9420926	1.0142045	.520
.817530	.8880871	1.1171795	.9386789	1.0174038	.468
.809484	.8823198	1.1235414	.9352346	1.0206032	.416
.800444	.8808374	1.1251816	.9343446	1.0126048	.364
.793347	.8804081	1.1256570	.9340864	1.0046063	.312
.783898	.8765465	1.1299407	.9317572	1.0014069	.260
.780282	.8759226	1.1306340	.9313797	.9982075	.208
.770423	.8696749	1.1375971	.9275796	.9998072	.156
.766397	.8667064	1.1409180	.9257617	1.0014069	.104
.766124	.8651710	1.1426388	.9248183	1.0046063	.052
.773631	.8680181	1.1394496	.9265660	1.0078057	0.000
.769917	.8666201	1.1410147	.9257087	1.0062060	-.052
.773925	.8695648	1.1377202	.9275123	1.0046063	-.104
.780822	.8790475	1.1271647	.9332673	.9918088	-.156
.789648	.8897606	1.1153392	.9396729	.9790112	-.208
.793382	.8911341	1.1138309	.9404867	.9806109	-.260
.799050	.8935832	1.1111456	.9419340	.9822106	-.312
.808316	.8965619	1.1078872	.9436871	.9870097	-.364
.817582	.8995018	1.1046794	.9454099	.9918088	-.416
.822979	.9002904	1.1038202	.9458707	.9966078	-.468
.830310	.9021221	1.1018271	.9469390	1.0014069	-.520
.836382	.9068640	1.0966817	.9496913	.9982075	-.572
.854051	.9178655	1.0848263	.9560028	.9950082	-.624
.851581	.9136040	1.0894050	.9535702	1.0014069	-.676
.876174	.9237557	1.0785262	.9593399	1.0078057	-.728
.868576	.9204727	1.0820336	.9574835	1.0062060	-.780
.891902	.9334931	1.0691840	.9647930	1.0046063	-.832
.886373	.9320801	1.0696791	.9640066	1.0014069	-.884
.892437	.9367608	1.0647337	.9666053	.9982075	-.936
.899765	.9383460	1.0630635	.9674814	1.0030066	-.988
.907093	.9399135	1.0614145	.9683456	1.0078057	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(g) y/D = 1.00

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.937654	.9496054	1.0512710	.9736448	1.0206032	1.040
.929892	.9456669	1.0553821	.9715006	1.0206032	.988
.920189	.9407202	1.0605668	.9687896	1.0206032	.936
.910618	.9365495	1.0649564	.9664884	1.0190035	.884
.906870	.9353545	1.0662173	.9658264	1.0174038	.832
.902988	.9333504	1.0683349	.9647136	1.0174038	.780
.893282	.9283207	1.0736664	.9619061	1.0174038	.728
.887324	.9244930	1.0777399	.9597555	1.0190035	.676
.881365	.9206612	1.0818319	.9575903	1.0206032	.624
.875137	.9152531	1.0876311	.9545134	1.0254023	.572
.870849	.9108792	1.0923416	.9520068	1.0302014	.520
.864694	.9162311	1.0865803	.9550716	1.0110051	.468
.862421	.9238386	1.0784377	.9593866	.9918088	.416
.857464	.9152935	1.0875877	.9545365	1.0046063	.364
.852503	.9068840	1.0966602	.9497029	1.0174038	.312
.847215	.9069232	1.0966177	.9497256	1.0110051	.260
.845811	.9090529	1.0943138	.9509553	1.0046063	.208
.841118	.9022274	1.1017126	.9470004	1.0142045	.156
.840308	.8975556	1.1068020	.9442703	1.0238026	.104
.838094	.8949755	1.1096215	.9427544	1.0270020	.052
.847539	.8986056	1.1056564	.9448855	1.0302014	0.000
.837820	.8948291	1.1097817	.9426692	1.0270020	-.052
.840025	.8974046	1.1069669	.9441817	1.0238026	-.104
.846722	.9161303	1.0866886	.9550141	.9902091	-.156
.853400	.9357461	1.0658039	.9660435	.9566156	-.208
.851795	.9256245	1.0765342	.9603926	.9758119	-.260
.854051	.9178655	1.0848263	.9560028	.9950082	-.312
.861262	.9408336	1.0604477	.9688520	.9550159	-.364
.872311	.9673197	1.0329666	.9831350	.9150236	-.416
.873986	.9430307	1.0581421	.9700583	.9646140	-.468
.873704	.9195385	1.0830336	.9569535	1.0142045	-.520
.881704	.9251991	1.0769875	.9601531	1.0110051	-.572
.899364	.9359008	1.0656407	.9661292	1.0078057	-.624
.899685	.9722347	1.0279419	.9857242	.9342199	-.676
.930813	1.0303232	.9703453	1.0149313	.8606341	-.728
.914519	.9887183	1.0112626	.9942705	.9182230	-.780
.932929	.9687052	1.0315478	.9838668	.9758119	-.832
.923329	.9757803	1.0243318	.9875802	.9518165	-.884
.931099	.9924672	1.0075062	.9961851	.9278211	-.936
.937546	1.0002181	.9997835	1.0001098	.9198227	-.988
.942062	1.0070120	.9930626	1.0035129	.9118242	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(h) y/D = 1.20

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.963191	.9533579	1.0473681	.9756760	1.0401627	1.040
.957504	.9512710	1.0495370	.9745478	1.0385625	.988
.951816	.9491729	1.0517217	.9734099	1.0369622	.936
.947935	.9472359	1.0537425	.9723563	1.0369622	.884
.944054	.9452949	1.0557712	.9712974	1.0369622	.832
.942113	.9443228	1.0567885	.9707659	1.0369622	.780
.936291	.9414005	1.0598523	.9691636	1.0369622	.728
.930469	.9384689	1.0629341	.9675493	1.0369622	.676
.924646	.9355280	1.0660342	.9659226	1.0369622	.624
.920229	.9304235	1.0714344	.9630824	1.0433632	.572
.917752	.9263333	1.0757797	.9607910	1.0497642	.520
.916545	.9401664	1.0611487	.9684849	1.0177592	.468
.917268	.9556838	1.0449558	.9769294	.9857542	.416
.911390	.9412258	1.0600357	.9690676	1.0097580	.364
.905502	.9272246	1.0748314	.9612916	1.0337617	.312
.903695	.9270166	1.0750527	.9611748	1.0321615	.260
.901888	.9268078	1.0752747	.9610576	1.0305612	.208
.899344	.9327701	1.0689487	.9643908	1.0145587	.156
.900680	.9409126	1.0603647	.9688954	.9985562	.104
.900471	.9507598	1.0500690	.9742708	.9777529	.052
.909958	.9660876	1.0342299	.9824830	.9569497	0.000
.897206	.9444086	1.0566987	.9708128	.9873544	-.052
.898533	.9308824	1.0709479	.9633386	1.0177592	-.104
.900198	.9302828	1.0715836	.9630038	1.0209597	-.156
.899930	.9286900	1.0732741	.9621130	1.0241602	-.208
.905998	.9552373	1.0454185	.9766891	.9745524	-.260
.913965	.9848208	1.0151824	.9922686	.9249447	-.312
.916027	.9867852	1.0132050	.9932790	.9233444	-.364
.920019	.9897912	1.0101862	.9948195	.9217442	-.416
.922164	.9799477	1.0201043	.9897493	.9425474	-.468
.926237	.9714472	1.0287454	.9853106	.9633507	-.520
.931684	.9841578	1.0158507	.9919269	.9441477	-.572
.950634	1.0043823	.9956587	1.0021998	.9249447	-.624
.937556	.9757457	1.0243670	.9875621	.9665512	-.676
.957283	.9653980	1.0349376	.9821175	1.0081577	-.728
.942702	.9519920	1.0487872	.9749380	1.0209597	-.780
.962884	.9561526	1.0444702	.9771815	1.0337617	-.832
.949231	.9486153	1.0523031	.9731069	1.0353620	-.884
.951029	.9487806	1.0521307	.9731968	1.0369622	-.936
.954493	.9483143	1.0526171	.9729432	1.0417630	-.988
.959889	.9488072	1.0521030	.9732112	1.0465637	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(i) y/D = 1.60

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
1.005982	.9641469	1.0362226	.9814536	1.0621952	1.040
1.001704	.9599288	1.0405666	.9792058	1.0669943	.988
.999366	.9566588	1.0439462	.9774535	1.0717934	.936
.995486	.9547998	1.0458720	.9764536	1.0717934	.884
.993545	.9538689	1.0468376	.9759518	1.0717934	.832
.993412	.9530941	1.0476420	.9755336	1.0733930	.780
.991339	.9513904	1.0494128	.9746124	1.0749927	.728
.989399	.9504589	1.0503821	.9741078	1.0749927	.676
.987459	.9495265	1.0513533	.9736019	1.0749927	.624
.985119	.9462909	1.0547297	.9718411	1.0797918	.572
.984719	.9440035	1.0571229	.9705912	1.0845909	.520
.982112	.9392957	1.0620642	.9680052	1.0925893	.468
.979503	.9346326	1.0669796	.9654260	1.1005878	.416
.978897	.9412087	1.0600537	.9690582	1.0845909	.364
.978289	.9479330	1.0530149	.9727358	1.0685940	.312
.978422	.9487079	1.0522065	.9731572	1.0669943	.260
.978555	.9494844	1.0513971	.9735791	1.0653946	.208
.974275	.9452790	1.0557878	.9712887	1.0701937	.156
.973875	.9429731	1.0582026	.9700267	1.0749927	.104
.973609	.9414440	1.0598066	.9691875	1.0781921	.052
.986926	.9464577	1.0545554	.9719321	1.0813915	0.000
.970910	.9408367	1.0604444	.9688537	1.0765924	-.052
.977106	.9459445	1.0550918	.9716521	1.0717934	-.104
.979038	.9468791	1.0541152	.9721618	1.0717934	-.156
.979038	.9468791	1.0541152	.9721618	1.0717934	-.208
.979304	.9484245	1.0525021	.9730032	1.0685940	-.260
.979570	.9499766	1.0508844	.9738462	1.0653946	-.312
.981369	.9501353	1.0507191	.9739323	1.0669943	-.364
.983167	.9502934	1.0505544	.9740180	1.0685940	-.416
.982768	.9479741	1.0529719	.9727582	1.0733930	-.468
.984300	.9465991	1.0544077	.9720092	1.0781921	-.520
.984567	.9481349	1.0528042	.9728457	1.0749927	-.572
1.000285	.9570985	1.0434911	.9776897	1.0717934	-.624
.986498	.9490646	1.0518346	.9733511	1.0749927	-.676
1.007479	.9576796	1.0428900	.9780015	1.0781921	-.728
.990229	.9501505	1.0507032	.9739406	1.0765924	-.780
1.007744	.9592301	1.0412879	.9788321	1.0749927	-.832
.994491	.9543225	1.0463670	.9761964	1.0717934	-.884
.998619	.9577318	1.0428360	.9780295	1.0685940	-.936
.996023	.9529266	1.0478160	.9754431	1.0765924	-.988
.997290	.9500098	1.0508498	.9738642	1.0845909	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(j) y/D = 2.00

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
1.026157	.9674072	1.0328769	.9831813	1.0762074	1.040
1.022278	.9655769	1.0347539	.9822124	1.0762074	.988
1.024218	.9664925	1.0338145	.9826974	1.0762074	.936
1.016459	.9628248	1.0375824	.9807505	1.0762074	.884
1.016459	.9628248	1.0375824	.9807505	1.0762074	.832
1.016326	.9620463	1.0383838	.9803360	1.0778089	.780
1.016193	.9612696	1.0391840	.9799218	1.0794104	.728
1.014519	.9619056	1.0385287	.9802610	1.0762074	.676
1.012845	.9625450	1.0378703	.9806016	1.0730044	.624
1.012048	.9578867	1.0426760	.9781125	1.0826134	.572
1.011249	.9532877	1.0474410	.9756381	1.0922224	.520
1.012313	.9594328	1.0410786	.9789405	1.0794104	.468
1.011436	.9647595	1.0355932	.9817789	1.0665984	.416
1.011170	.9631878	1.0372089	.9809437	1.0698014	.364
1.010905	.9616228	1.0388200	.9801102	1.0730044	.312
1.008965	.9606997	1.0397714	.9796177	1.0730044	.260
1.010905	.9616228	1.0388200	.9801102	1.0730044	.208
1.008566	.9583667	1.0421797	.9783698	1.0778089	.156
1.008167	.9560487	1.0445778	.9771257	1.0826134	.104
1.008965	.9606997	1.0397714	.9796177	1.0730044	.052
1.021399	.9709586	1.0292443	.9850537	1.0633954	0.000
1.005978	.9592766	1.0412398	.9788570	1.0730044	-.052
1.009043	.9564637	1.0441481	.9773487	1.0826134	-.104
1.010841	.9566084	1.0439983	.9774265	1.0842149	-.156
1.012640	.9567526	1.0438491	.9775039	1.0858164	-.208
1.009309	.9580080	1.0425505	.9781775	1.0794104	-.260
1.011772	.9620350	1.0383955	.9803299	1.0730044	-.312
1.016353	.9789321	1.0211330	.9892219	1.0409744	-.364
1.018992	.9956397	1.0043382	.9977970	1.0089445	-.416
1.016617	.9805692	1.0194753	.9900716	1.0377714	-.468
1.016165	.9670121	1.0332818	.9829724	1.0665984	-.520
1.016297	.9678021	1.0324724	.9833900	1.0649969	-.572
1.029945	.9750121	1.0251130	.9871789	1.0633954	-.624
1.019288	.9751080	1.0250154	.9872290	1.0521849	-.676
1.041446	.9909432	1.0090316	.9954081	1.0409744	-.728
1.023942	.9818254	1.0182051	.9907222	1.0425759	-.780
1.041182	.9892969	1.0106819	.9945667	1.0441774	-.832
1.026137	.9843903	1.0156163	.9920468	1.0393729	-.884
1.040044	.9933368	1.0066369	.9966277	1.0345684	-.936
1.023358	.9675276	1.0327536	.9832449	1.0730044	-.988
1.022099	.9500660	1.0507912	.9738947	1.1114404	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Continued

(k) y/D = 2.40

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.988603	1.0015658	.9984467	1.0007876	.9673055	1.040
.984463	.9978158	1.0021708	.9988982	.9705085	.988
.984199	.9960400	1.0039391	.9979998	.9737115	.936
.984331	.9969268	1.0030556	.9984488	.9721100	.884
.984463	.9978158	1.0021708	.9988982	.9705085	.832
.986138	.9970205	1.0029624	.9984962	.9737115	.780
.987813	.9962298	1.0037500	.9980959	.9769145	.728
.986891	.9900998	1.0098768	.9949772	.9881250	.676
.987906	.9850368	1.0149647	.9923799	.9993355	.624
.990109	.9877186	1.0122666	.9937581	.9961325	.572
.992311	.9904103	1.0095655	.9951359	.9929295	.520
.999082	1.0118988	.9882563	1.0059395	.9576965	.468
1.003901	1.0335255	.9672661	1.0164691	.9224635	.416
1.003640	1.0316016	.9691149	1.0155461	.9256665	.364
1.005316	1.0306810	.9700008	1.0151035	.9288695	.312
1.005785	1.0085634	.9915343	1.0042852	.9705085	.260
1.004300	.9868705	1.0131191	.9933229	1.0121475	.208
1.003507	.9818316	1.0181988	.9907254	1.0217564	.156
1.002714	.9768607	1.0232342	.9881438	1.0313654	.104
1.004786	.9786293	1.0214398	.9890645	1.0297639	.052
1.004918	.9794557	1.0206026	.9894939	1.0281624	0.000
1.001834	.9771911	1.0228988	.9883160	1.0297639	-.052
1.005563	.9782476	1.0218269	.9888660	1.0313654	-.104
1.006356	.9832242	1.0167924	.9914452	1.0217564	-.156
1.007148	.9882691	1.0117136	.9940404	1.0121475	-.208
1.007148	.9882691	1.0117136	.9940404	1.0121475	-.260
1.005218	.9873217	1.0126655	.9935545	1.0121475	-.312
1.002150	.9905266	1.0094490	.9951953	1.0025385	-.364
.997151	.9928223	1.0071511	.9963659	.9929295	-.416
.993290	.9908988	1.0090761	.9953854	.9929295	-.468
.989430	.9889715	1.0110085	.9944001	.9929295	-.520
.986229	.9913751	1.0085981	.9956290	.9849220	-.572
.988818	.9967365	1.0032452	.9983525	.9769145	-.624
.989553	1.0270054	.9735462	1.0133302	.9208620	-.676
.996044	1.0632355	.9391749	1.0303926	.8648095	-.728
.994614	1.0518129	.9498734	1.0251121	.8824260	-.780
.993180	1.0407177	.9603869	1.0198964	.9000425	-.832
.993702	1.0447155	.9565849	1.0217856	.8936365	-.884
.994223	1.0487552	.9527589	1.0236833	.8872305	-.936
.997083	1.0717582	.9312750	1.0342744	.8519975	-.988
1.001857	1.0972481	.9080662	1.0455952	.8167646	-1.040

TABLE III.- LOCAL FLOW PROPERTIES IN THE WAKE OF THE 120° CONE; x/D = 8.39 - Concluded

(l) y/D = 3.00

q_1/q_∞	M_1/M_∞	T_1/T_∞	V_1/V_∞	p_1/p_∞	z/D
.995921	1.0025195	.9975018	1.0012664	.9726125	1.040
.993588	.9988834	1.0011092	.9994372	.9774116	.988
.993193	.9962423	1.0037375	.9981023	.9822106	.936
.992930	.9944919	1.0054832	.9972147	.9854100	.884
.994606	.9937187	1.0062553	.9968219	.9886094	.832
.996544	.9946867	1.0052888	.9973136	.9886094	.780
.996544	.9946867	1.0052888	.9973136	.9886094	.728
.996018	.9912212	1.0087532	.9955499	.9950082	.676
.995491	.9877878	1.0121971	.9937936	1.0014069	.624
.995359	.9869344	1.0130548	.9933557	1.0030066	.572
.995227	.9860830	1.0139113	.9929182	1.0046063	.520
.996506	.9828119	1.0172086	.9912323	1.0126048	.468
.993907	.9776756	1.0224071	.9885683	1.0206032	.416
.999171	1.0125152	.9876517	1.0062444	.9566156	.364
1.004394	1.0509138	.9507209	1.0246926	.8926279	.312
1.002831	1.0389836	.9620409	1.0190734	.9118242	.260
1.001265	1.0274135	.9731519	1.0135276	.9310205	.208
.996708	1.0079014	.9921861	1.0039559	.9630143	.156
.994079	.9902560	1.0097202	.9950571	.9950082	.104
.994079	.9902560	1.0097202	.9950571	.9950082	.052
.994079	.9902560	1.0097202	.9950571	.9950082	0.000
.989523	.9895762	1.0104018	.9947096	.9918088	-.052
.991716	.9922742	1.0076993	.9960867	.9886094	-.104
.996798	1.0147115	.9855005	1.0073282	.9502168	-.156
.998006	1.0364812	.9644329	1.0178820	.9118242	-.208
.997876	1.0355055	.9653672	1.0174163	.9134239	-.260
.997745	1.0345323	.9663000	1.0169511	.9150236	-.312
.998658	1.0413972	.9597396	1.0202183	.9038257	-.364
.999569	1.0483870	.9531069	1.0235108	.8926279	-.416
.999569	1.0483870	.9531069	1.0235108	.8926279	-.468
.999569	1.0483870	.9531069	1.0235108	.8926279	-.520
.999569	1.0483870	.9531069	1.0235108	.8926279	-.572
.999569	1.0483870	.9531069	1.0235108	.8926279	-.624
.993725	1.0183023	.9819935	1.0090927	.9406186	-.676
.991716	.9922742	1.0076993	.9960867	.9886094	-.728
.991716	.9922742	1.0076993	.9960867	.9886094	-.780
.991716	.9922742	1.0076993	.9960867	.9886094	-.832
.991848	.9931439	1.0068297	.9965295	.9870097	-.884
.991979	.9940156	1.0059588	.9969728	.9854100	-.936
.991848	.9931439	1.0068297	.9965295	.9870097	-.988
.991716	.9922742	1.0076993	.9960867	.9886094	-1.040

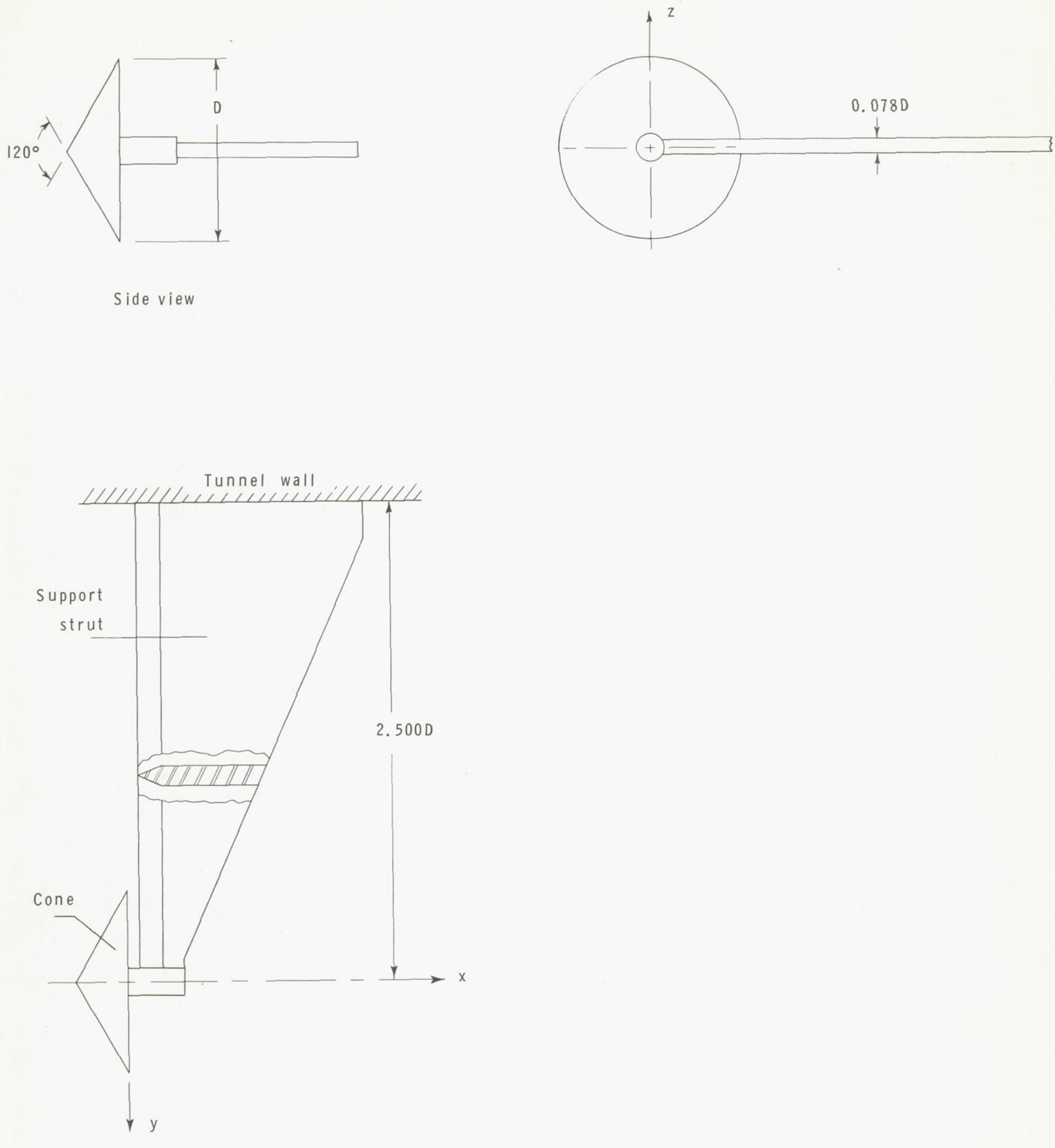


Figure 1.- Details of model and model support system. Dimensions are presented as fractions of base diameter where D = 4.80 inches (12.19 cm).

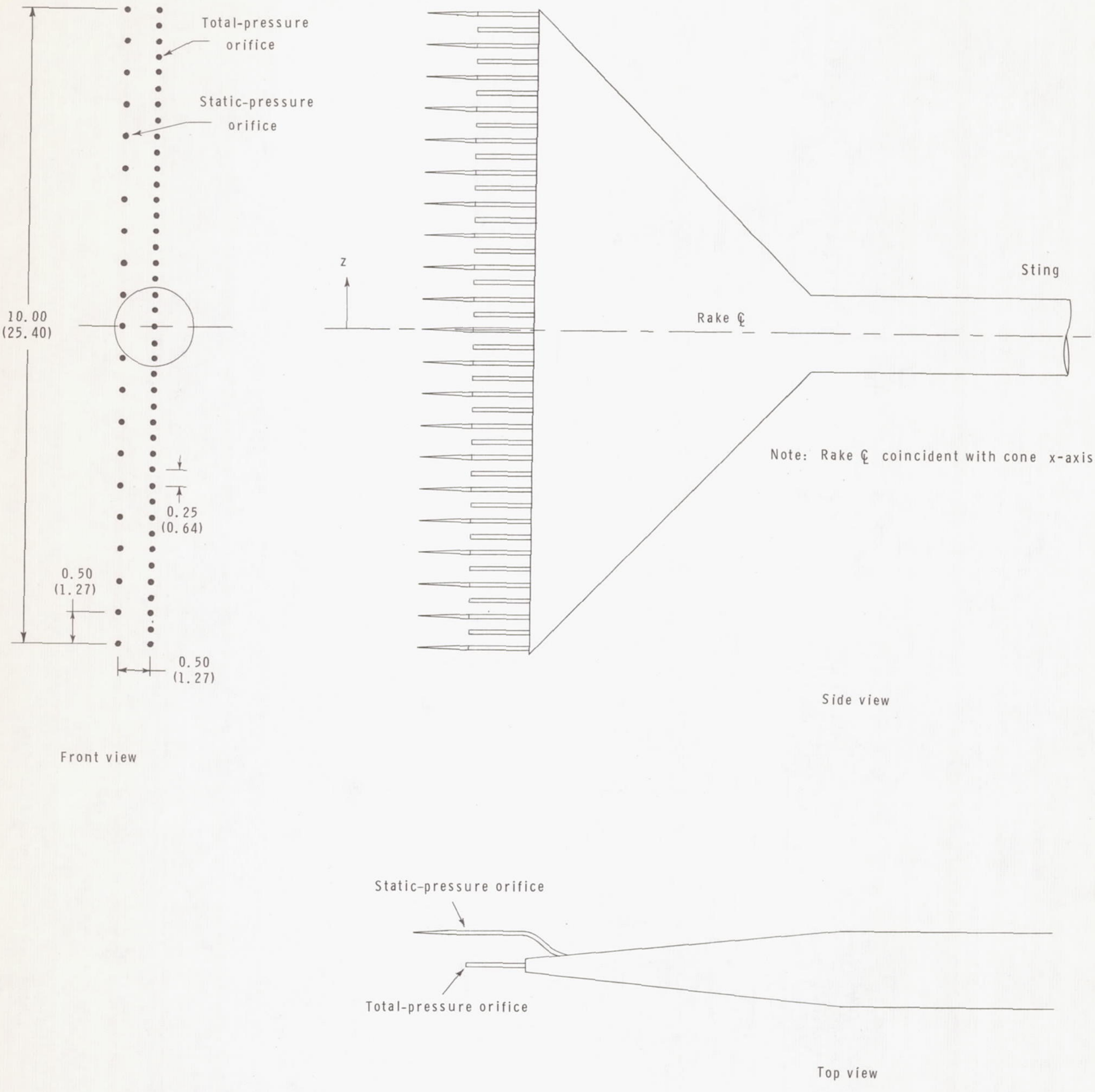


Figure 2.- Details of pressure rake. Dimensions are presented in inches (cm).

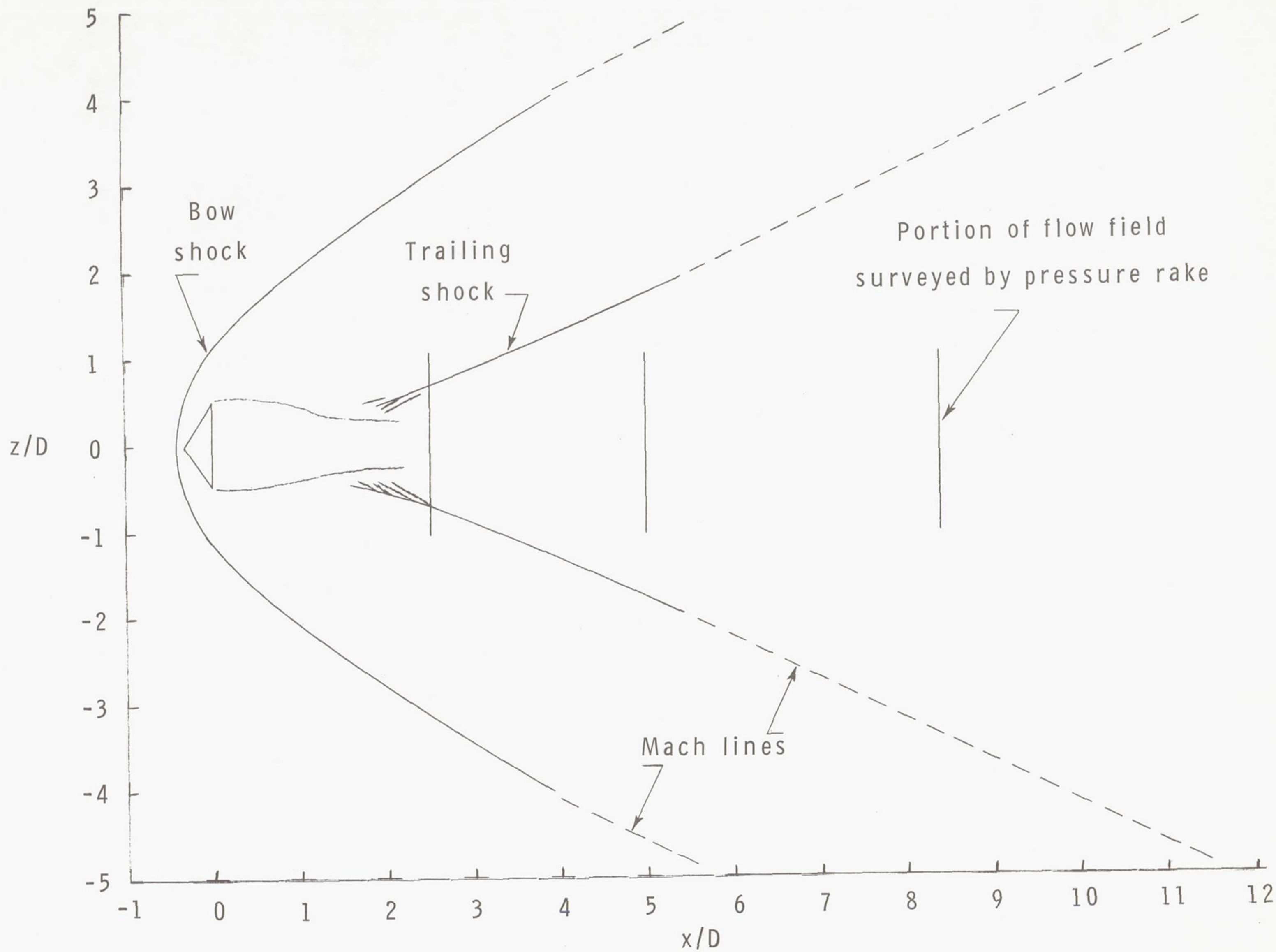
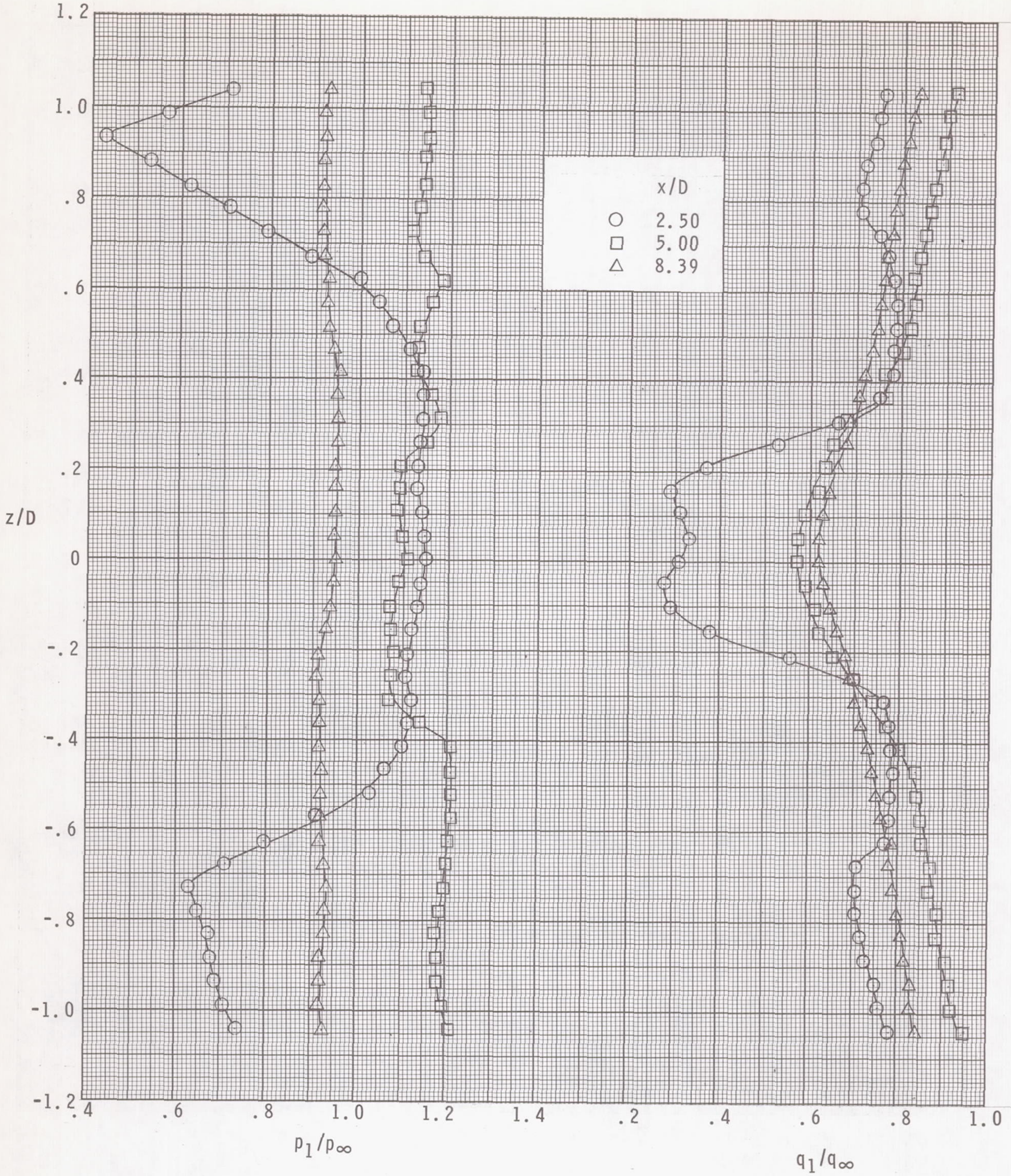
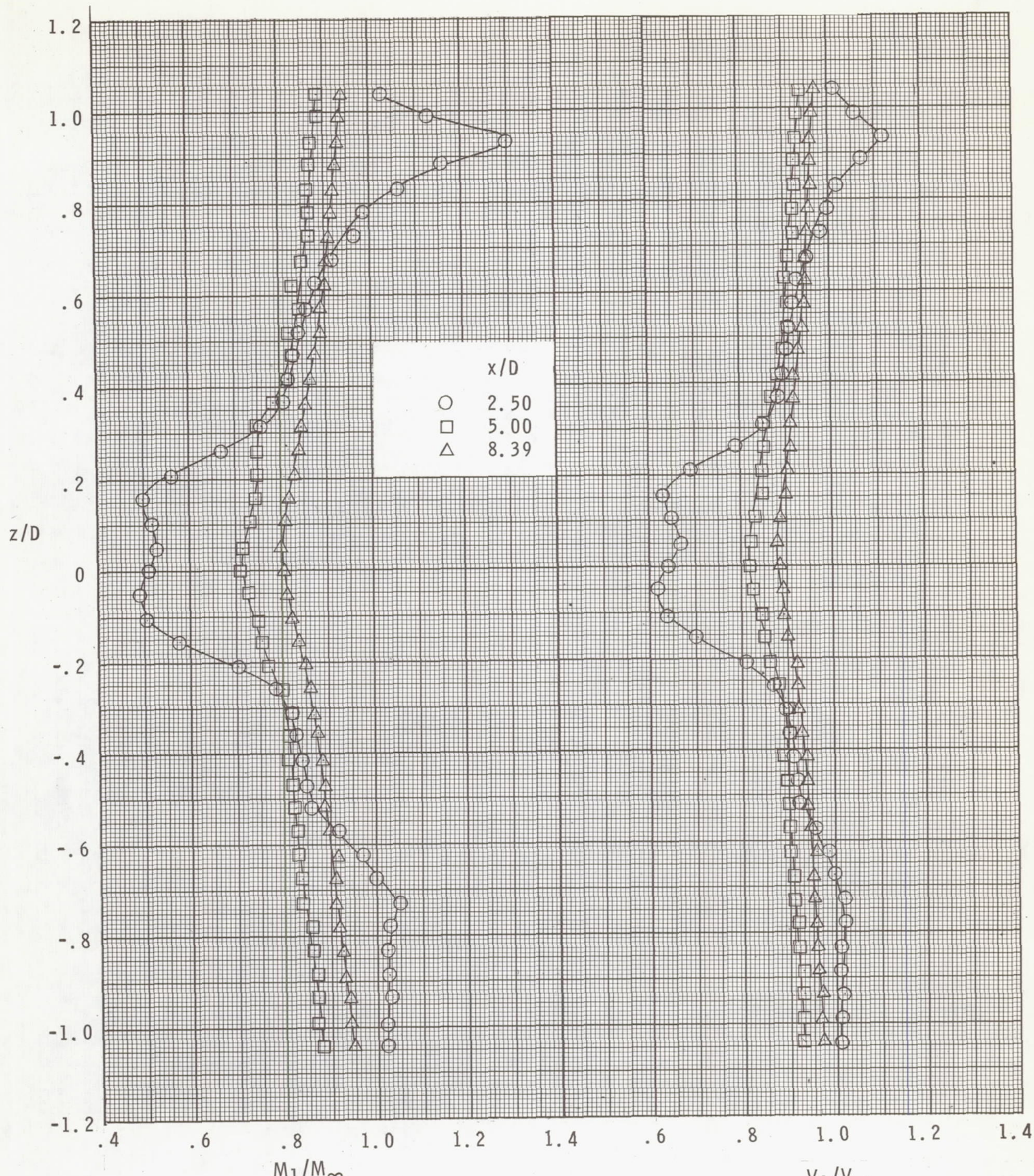


Figure 3.- Schematic of flow field around 120° cone at $M_\infty = 2.30$ (from ref. 5) illustrating those portions of flow field surveyed by pressure rake. Range of y/D from -0.40 to 3.00.



(a) p_l/p_∞ and q_l/q_∞.

Figure 4.- Variation of flow properties across wake for three longitudinal locations; y/D = 0.



(b) M_1/M_∞ and V_1/V_∞.

Figure 4.- Concluded.

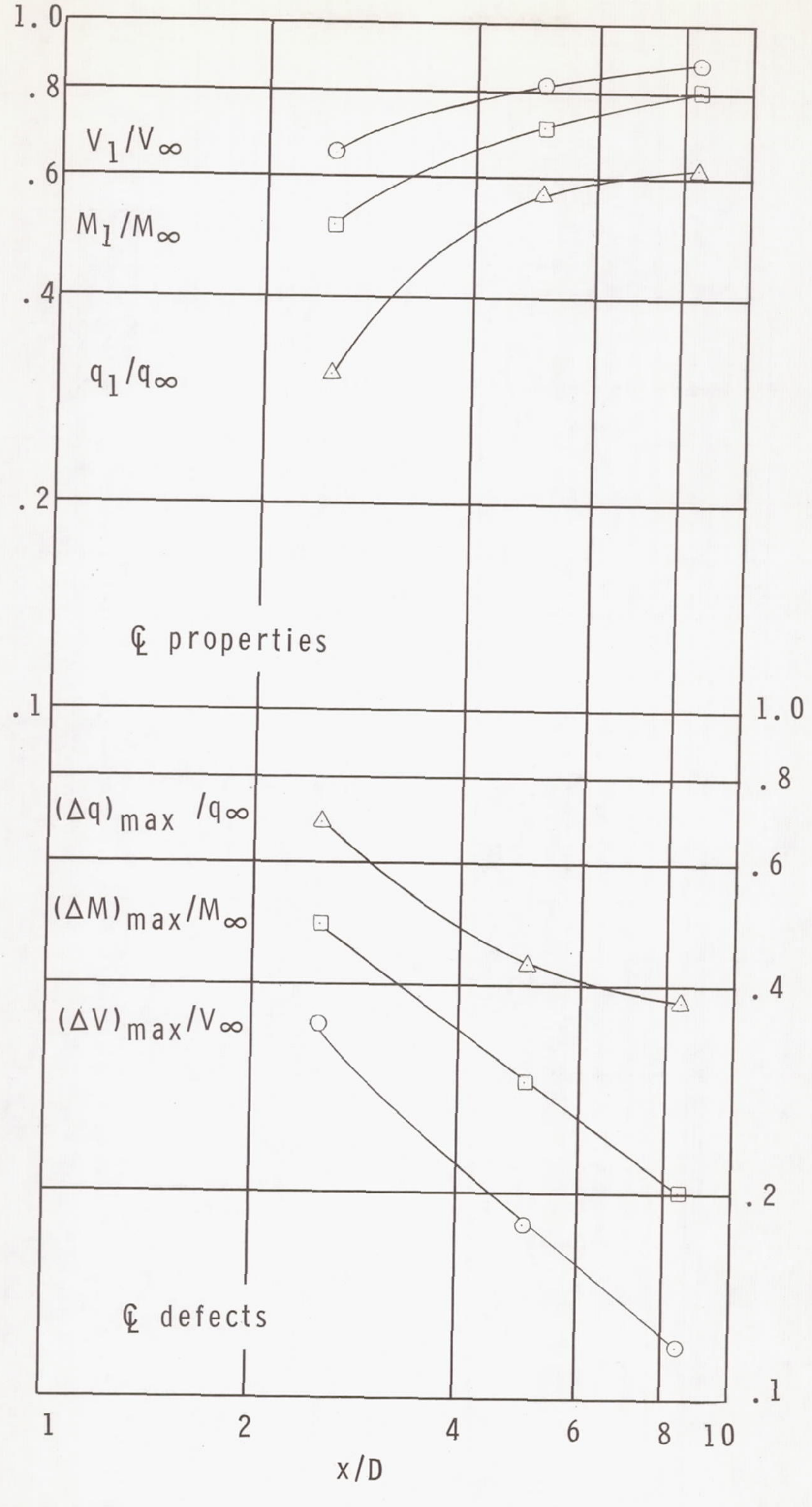


Figure 5.- Effect of x/D on properties at wake center; z/D = 0; y/D = 0.

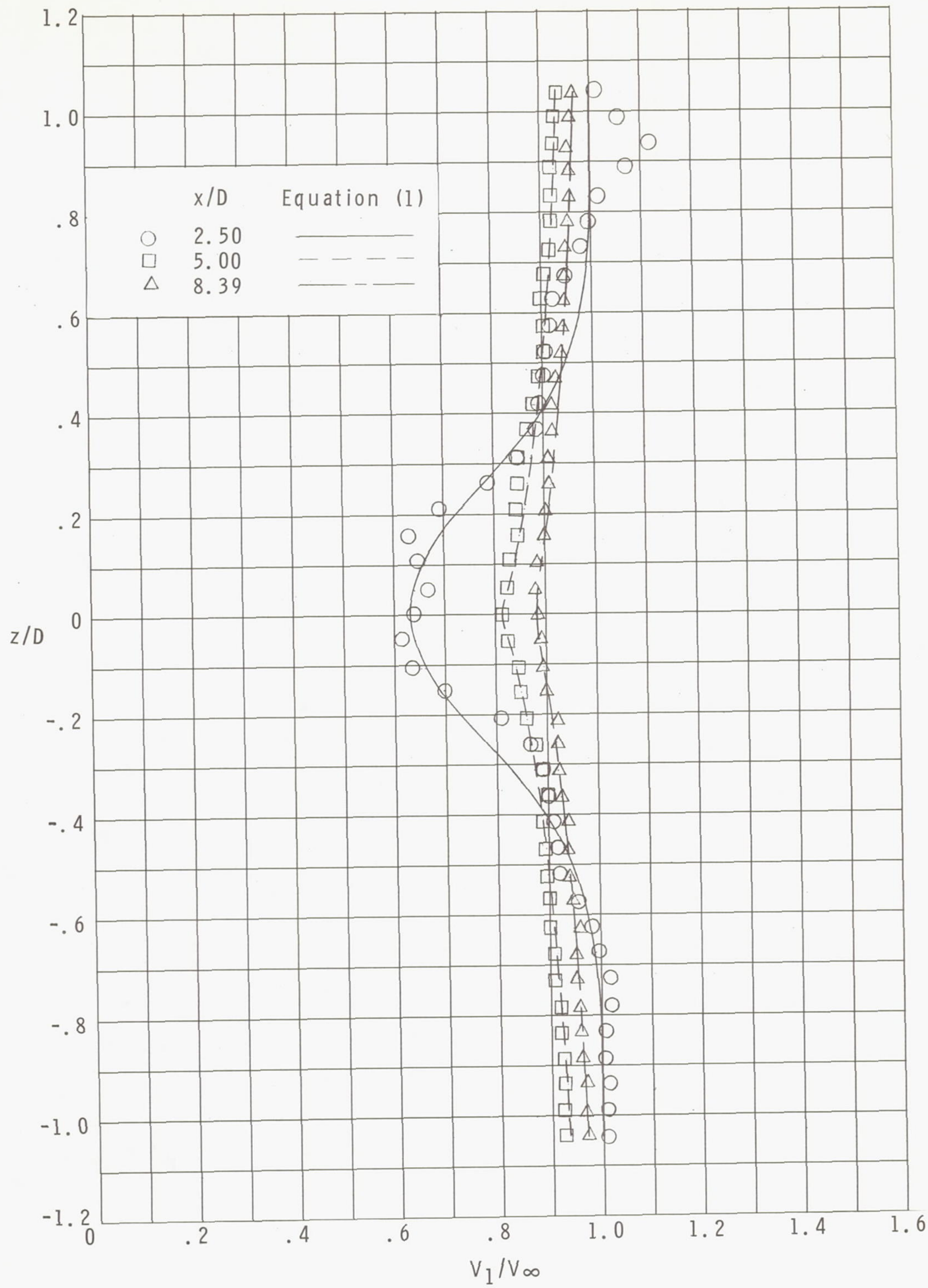


Figure 6.- Comparison of experimental and empirical velocity distributions; y/D = 0. Empirical results obtained by using method of least squares with exponential function.

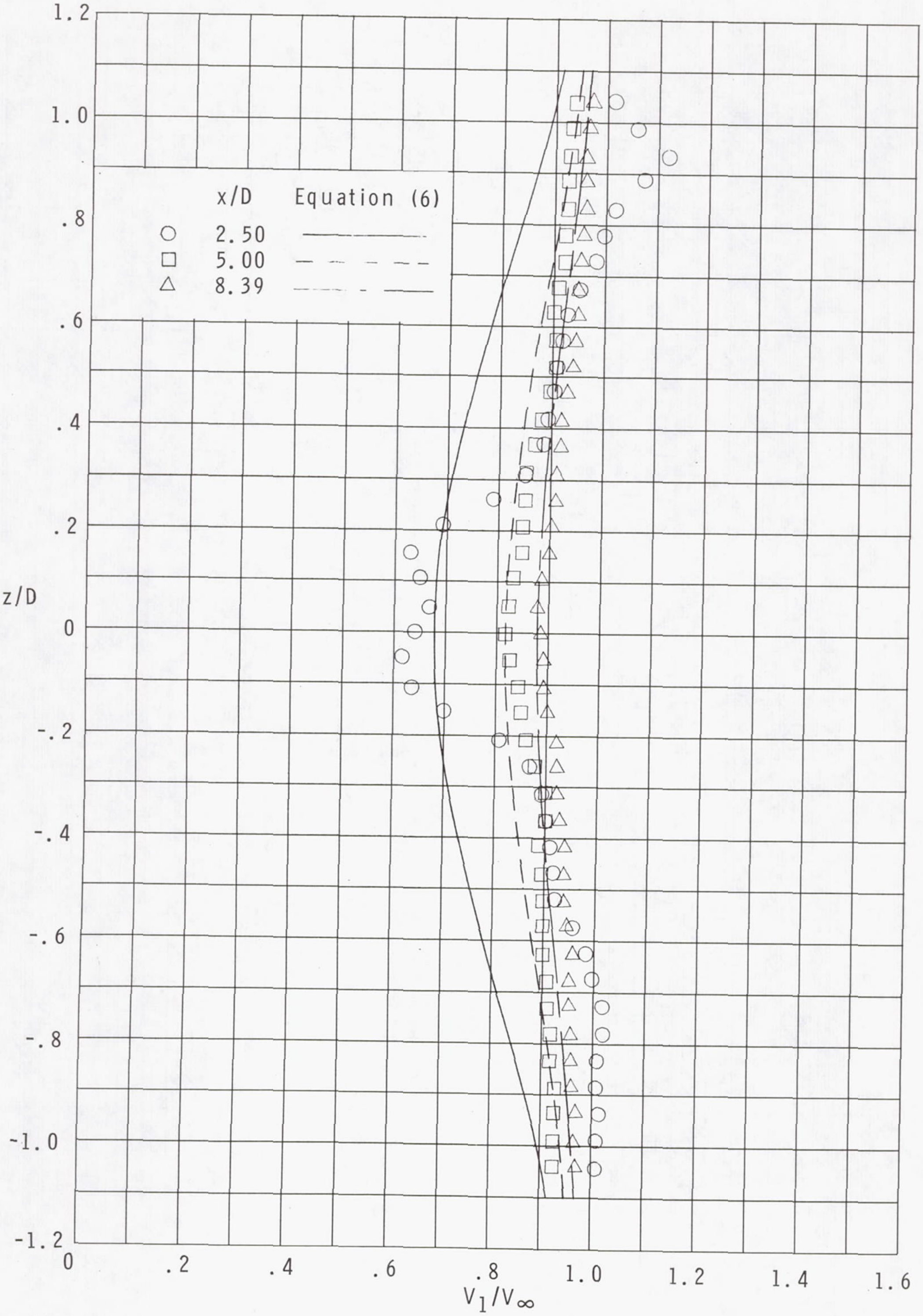
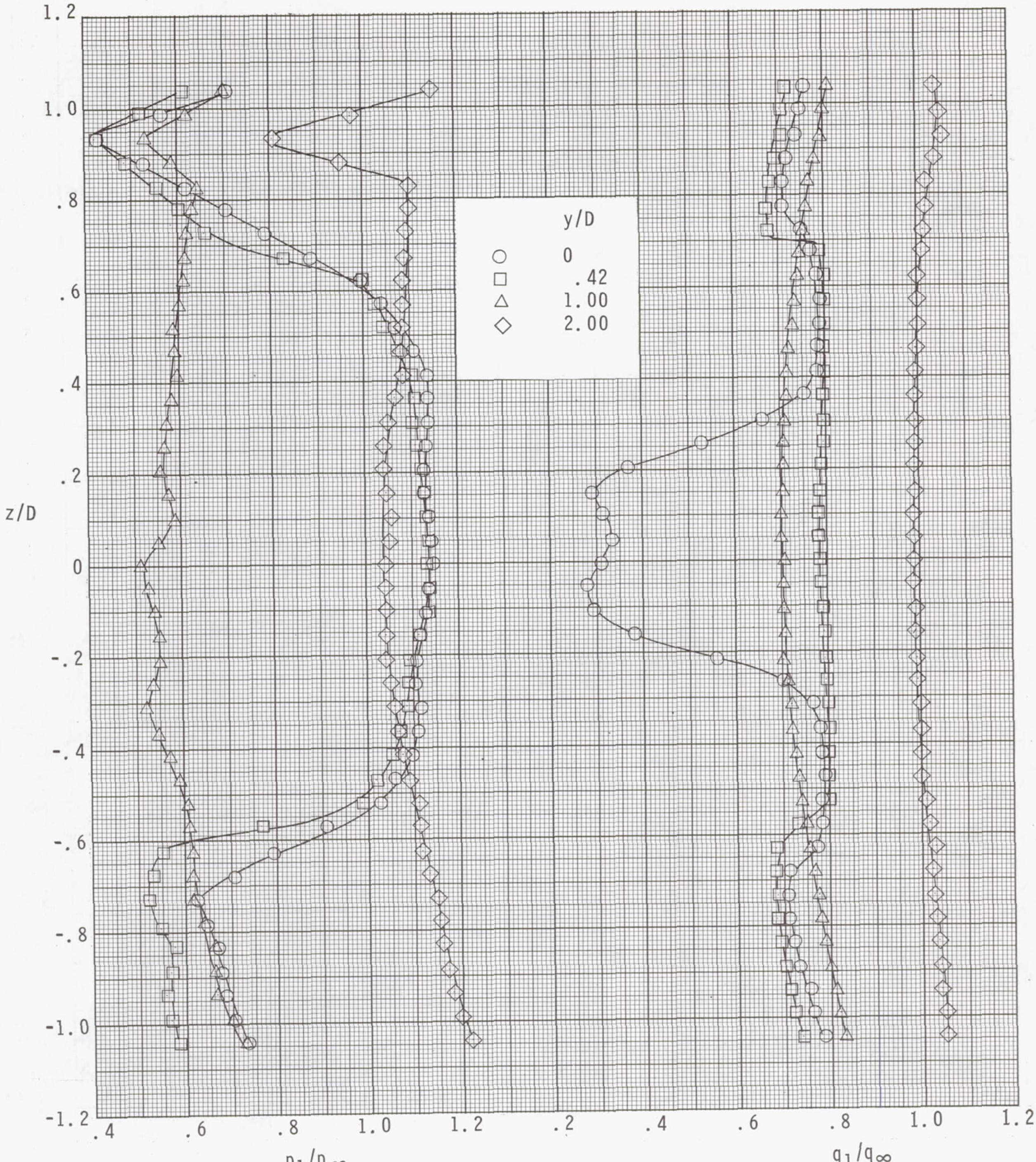
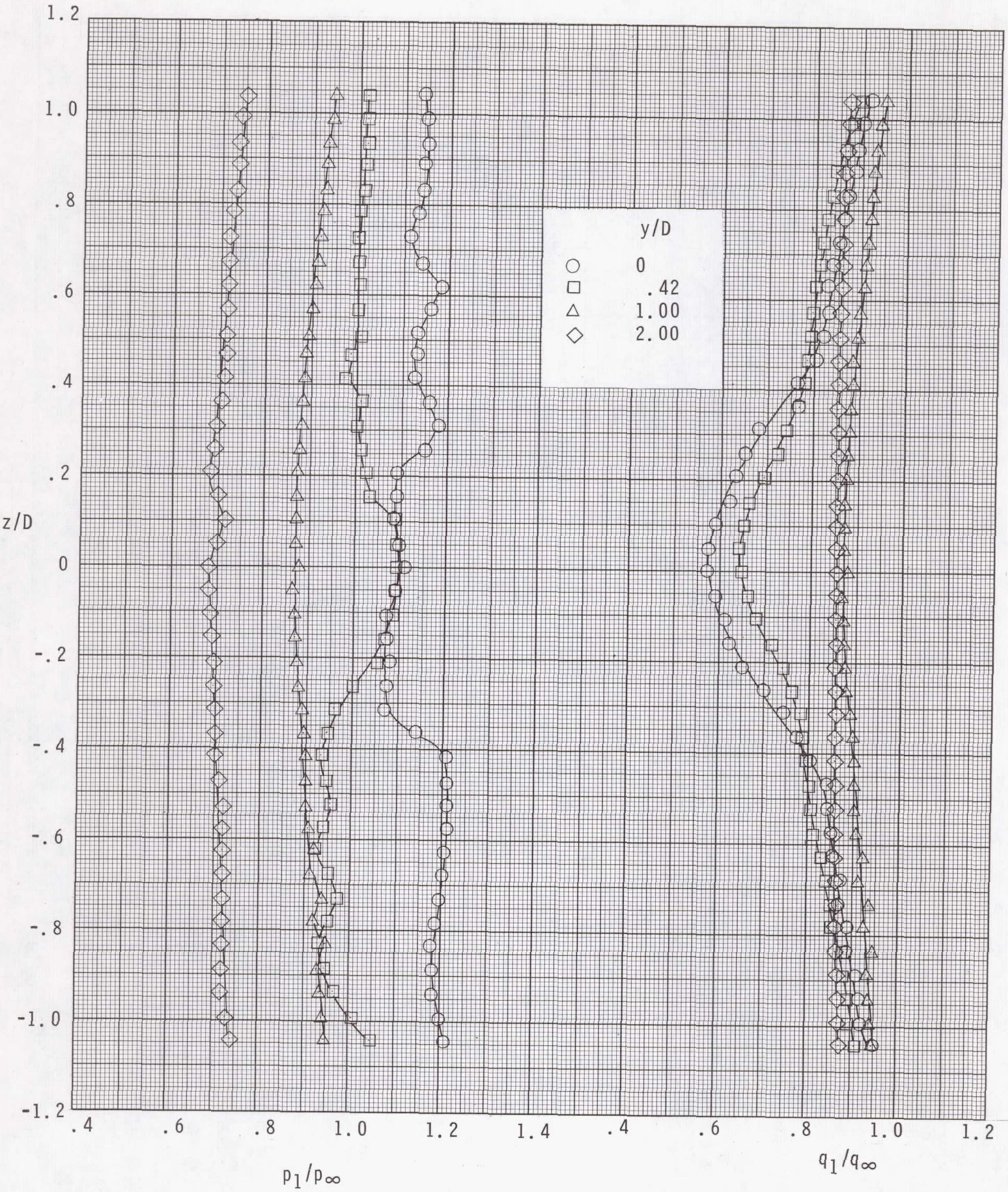


Figure 7.- Comparison of experimental and empirical velocity distributions; y/D = 0. Empirical results obtained by using boundary conditions with exponential function.



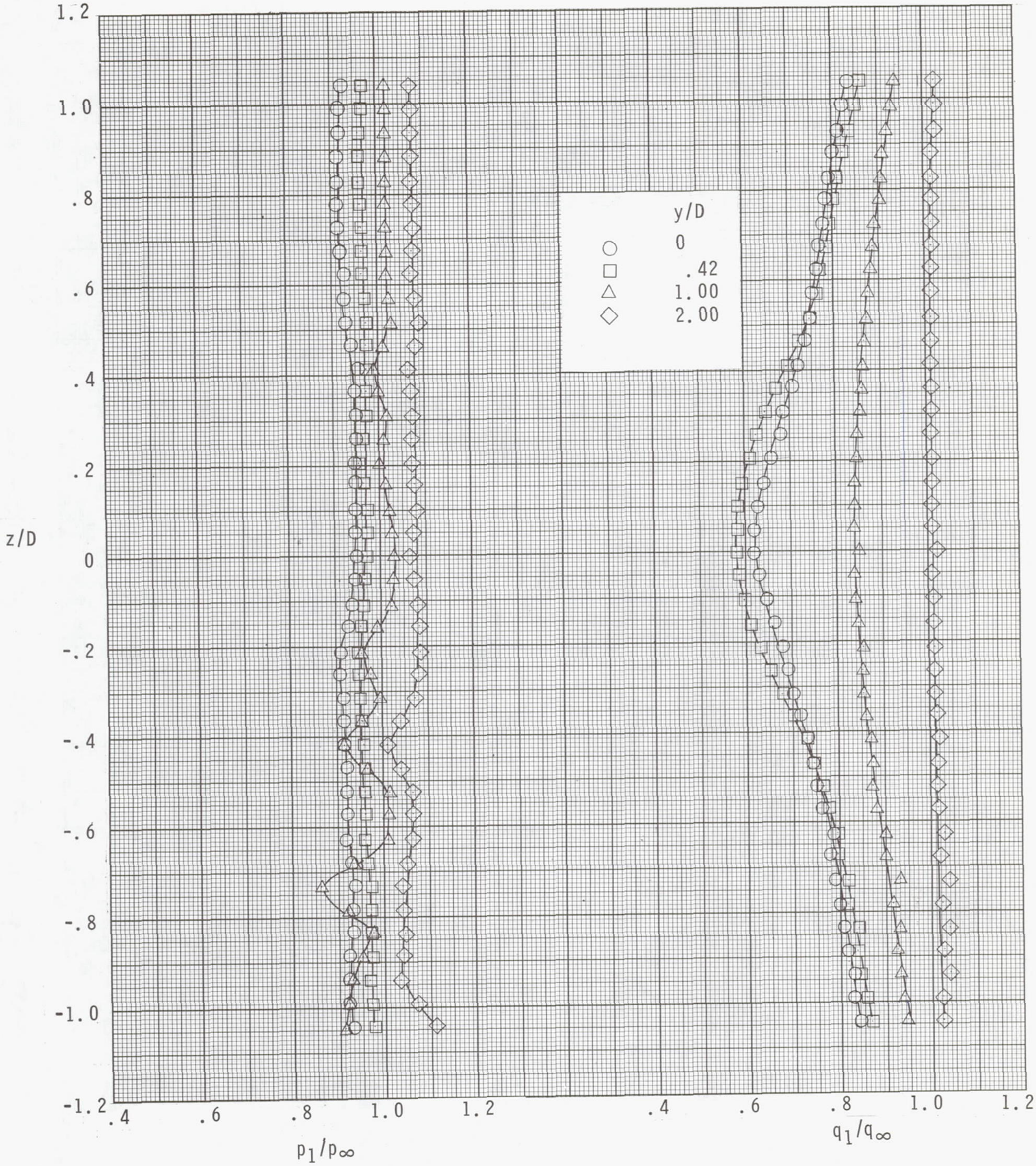
(a) x/D = 2.50.

Figure 8.- Variation of static and dynamic pressures across wake at selected y/D locations.



(b) x/D = 5.00.

Figure 8.- Continued.



(c) x/D = 8.39.

Figure 8.- Concluded.

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